

AGENDA NO.132.09

Proposal No.	SIA/OR/MIN/422673/2023
Date of application	19.03.2023
File No.	422673/891-MINB2/03-2023
Project Type	Proposal for EC
Category	B2
Project/Activity including Schedule No.	1(a) Mining of minerals
Name of the Project	Proposal for grant of EC for Rengalbeda Stone Quarry Over an area of 1.1 Acre or 0.445 Hectares in village Rengalbeda under Tiring Tahasil of Mayurbhanj District of Odisha.
Name of the company/Organization	Tahasildar, Tiringi
Location of Project	Odisha
ToR Date	N/A
Name of the Consultant	N/A

Proposal in brief:

1. 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 of for Rengalbeda Stone Quarry Over an area of 1.1 Acre or 0.445 Hectares in village Rengalbeda under Tiring Tahasil of Mayurbhanj District of Odisha.
 - (ii) The mining area is a part of Survey of India Toposheet No. 73-J/3 bounded by Latitude: 22°24'55.10" N to 22°24'59.70" N and Longitude: 86°04'4.4" E to 86°04'9.3" E.
 - (iii) The mining lease is an identified sairat source in the DSR. The Rengalbeda Stone Quarry sairat source will be leased out under the OMMC Rules, 2016 by Tahasildar, Tiring Tahasil 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, DSR, Village sheet, Cluster certificate from Tahasildar, topo map etc.
 - (v) Distance from nearest sanctuary/ESZ- Similipal WLS-45.62km
 - (vi) Whether the lease area coming in DLC report-No, as certified by Tahasildar, Tiringi vide letter no. Nil dated 09.11.2022
 - (vii) Whether submitted scrutiny-Yes, of Rs. 1000/- vide e-Challan Ref. No. 35A0617E11 dated 24.03.2023.
 - (viii) Whether submitted KML file-Yes
 - (ix) Whether the lease area reflecting in DSR-Yes
 - (x) Method of mining-Semi-mechanized
 - (xi) Distance from nearest road bridge-3.67 km, village -0.2 km,
 - (xii) Whether it is part of cluster - No
 - (xiii) Whether EC obtained earlier- Yes but not submitted EC compliance
 - (xiv) Date of approval of mining plan- Deputy Director of Mines, Baripada Circle, Baripada on dated 17.10.2022.
 - (xv) Production capacity per annum-3600 cum/annum (max.), total production in 5 years period-18000 cum, Geological reserve-56520 cum and Mineable reserve-18000 cum.
 - (xvi) Proposed mining depth as per approved mining plan- 6.0 meter
 - (xvii) 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 and 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)- No

(xviii) EMP budget- Rs. 50,000/- per annum

(xix) 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 6th 8th 9th and 10th may 2023 and the SEAC recommended for granting EC valid from the date of EC accorded up to the lease period with following additional conditions.
- 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 of the stone quarry for ensuring that working personnel are not affected by silicosis.
 - The boundary area of the deposit as per the revised / updated DSR to be defined by geo coordinates based on DGPS survey superimposed on the cadastral map.
 - Construction of gariand drains retaining wall and settling tank should be ensured to prevent erosion during rainfall and to collect silt generated during the mining activity.

2. The proposal was placed in the 125th meeting of SEIAA held on 26th, 27th and 28th June, 2023 and after detailed deliberations, the Authority **decided to raise ADS** to the project proponent to submit compliance of earlier EC conditions.

Decision of Authority: Approved

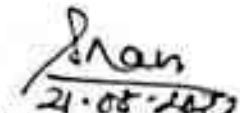
After detailed deliberations, the Authority decided to **grant Environmental Clearance** with usual stipulated conditions as applicable for stone quarry.

- Maximum depth of mining 6.0 meter and maximum quantity of extraction shall be limited to **3600 cum** in 1st year and **3600 cum** in 2nd year.
- The validity of EC is for 1st year and 2nd year from date of issue 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.1,00,000/-, with the respective District Environment Society for raising 200 plants (minimum @100 trees per Ha) of native species within 2 years in a suitable location preferably adjoining to quarry area.
- The PP will implement the EMP with a budgetary allocation of Rs.50000/annum each year for a period of 5 years & Rs. 50,0000/- towards Occupational Health and Safety of the workers as proposed during the valid lease period of 5 years.


Member Secretary, SEIAA

APPROVED BY


Member, SEIAA


Chairman, SEIAA

AGENDA NO.132.10

Proposal No.	SIA/OR/MIN/417367/2023
Date of application	09.02.2023
File No.	417367/797-MINB1/02-2023
Project Type	Proposal for EC
Category	B1
Project/Activity including Schedule No.	1(a) Mining of minerals
Name of the Project	Proposal of Environmental Clearance for Bentakarpada Sand Quarry (under cluster approach) is a sand mining project over an area of 25.00 acres/10.12Ha Located in village Bentakarpada, Tahasil- Barang in District Cuttack of Sri Subash Chandra Rout.
Name of the company/Organization	SUBASH CHANDRA ROUT
Location of Project	Odisha
ToR Date	29.07.2021
Name of the Consultant	M/s Kalyani Laboratories 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 for Bentakarpada sand quarry (under cluster approach) is a sand mining project over an area of 25.00 acres/10.12 Ha located in village Bentakarpada, Tahasil- Barang in District Cuttack of Sri Subash Chandra Rout.
1. **Category:** The project is categorized in Category-B1 of Schedule under item 1(a)-Mining of Minerals in the EIA notification, 2006 and its subsequent amendments.
2. The Quarry lease has granted by the Tahasildar, Baranga to the applicant (successful bidder) Sri Subash Chandra Rout, At-Trisulia, Po-Baranga, Cuttack for mining of river sand (I) for five years.
3. As per the Director of Geology, Odisha, the mining plan has been approved by the Deputy Director of Geology, Bhubaneswar, Odisha vide memo no. GXV(j)- 152/2018/545/DG on dated 21.01.2019.
4. **TOR details:** The Terms of Reference (ToR) has been issued by SEAC, Odisha vide Letter No. SIA/OR/MIN/61621/2021 on dated 29.07.2021.
5. **Public hearing details:** The Public Hearing in respect of Environmental Impact Assessment for Bentakarpada Sand Quarry (under cluster approach) of Sri Suresh Chandra Rout over an area of 10.12Ha. in village Bentakarpada under Barang Tahasil in Cuttack district, Odisha was conducted on 22.06.2022 at 11.30 A.M at the field adjacent to Bentakarpada Sand Quarry under Barang Tahasil of Cuttack. Issues raised in public hearing were dust pollution, water sprinkling on road, not to construct road across the riverbed for the sand quarry, not to construct road through CDA side. Total expenses to be incurred for the action plan is 6 lakhs.
6. There is an another mines within 500 meters of the proposed quarry i.e., Kathajodi River Sand, Tangarhuda of Cuttack Sadar Tahasil, The distance of Kathajodi River Sand, Tangarhuda from the proposed quarry Bentakarpada Sand quarry is 210 meters. This mine had obtained Environment Clearance from SEIAA, Odisha vide letter no. 6183/SEIAA dated 01.11.2018. The Tangarhuda Sand Quarry (Kathajodi R/S) is over an area of 35.00 acres or 14.17 ha. of Smt. Rajashree Behera at village Tangarhuda, Tahasil Sadar Cuttack, District Cuttack.
7. **Location and connectivity:** The proposed project is for the extraction of sand from the allotted Khata No.-57, Plot No-70p, Kissam- Nadi. The project is in survey of India toposheet no. 73H/14 and 73H/15 and bounded between the latitudes of 20°27'57.05"N to 20°28'4.9"N and longitudes of 85°19'31.2"E

85°49'48.06"E. Nearest road is Cuttack- Athagarh road which is located at a distance of 0.7km from quarry lease area. This site is well connected to NH-16 at distance of 6.4kms and State Highway at 2km. Nearest Airport is Bhubaneswar Airport at 24km. The major district road is Banki road which is located at 1.9kms. Nearest railway lines is Naraj-Marhapur railway line which is located at distance of 4.90 kms from the lease area. The nearest road bridge is located at a distance of 1.34km and railway bridge at 8.80km from the lease area. River embankment is at a distance of 500m from the lease boundary. Nearest sanctuaries are Chandaka Elephant sanctuary at 7.50km and Nandankanan Sanctuary at 7.70km.

8. **Topography and drainage:** The proposed project land is the government land leased for excavation of river sand. There will be no change in land use pattern after the end of plan period as the land will remain as the part of Kathajodi riverbed and the quarry area will be replenished during the rainy season. The Sand bed is on the Kathajodi River. The sand bed deposit represents a gentle sloping to almost flat terrain with highest altitude of 32mRL. The drainage of the district is mainly controlled by rivers like Mahanadi, Kathajodi, Kuakhai, Birupa, Chitrapala, Sidua, Luna and Devi. The river basins are much wider and the sand sources are very much suitable for construction purposes. Being highest order of streams, the energy of the streams is less and the suspensions including the river sand are deposited through sedimentation.
9. **Reserves and total production:** The Geological reserves of the proposed project is estimated to be 303510 cum and mineable reserves is 274920 cum. The rate of proposed production will be maximum up to 105000Cu.m per annum for the period of 5 years.

Year Wise Production Plan	
Year	Production (m ³)
1st Year	105000
2nd Year	105000
3rd Year	105000
4th Year	105000
5th Year	105000
Total	525000

10. **Mining method:** The method of excavation of sand from Sand quarry will be semi mechanized open cast mining. The mode of the deposits, geomorphology of the area and its hydrological condition are some of the factors that favor the open cast method of mining. In this deposit, the mining is done by dry pit method i.e. Sand will be excavated within the active channel on dry intermittent or ephemeral stream beds. The excavator is used for removal of sand from the pits. The sands are extracted, loaded and transferred from pits to the users through trucks and tractors. The mining is done on single shift basis. Benching pattern is not feasible in case of sand, as the angle of repose of sand is 35°, based on this the Ultimate pit slope Limit has been taken as 35°. The maximum depth of mining will be of 2.50 m or up to water table whichever is less.
11. A temporary approach road will be constructed through the riverbed to Cuttack- Banki Road (1500m) through which the vehicles will carry the sand to the user agency. This road connects riverbank road and finally connect to NH 16. There will be movement of 45 nos of vehicles in this road for transportation of sand. The river bank road connect to Banki road which is two lane one way (60 ft wide) is black topped road. There is one school present along the cuttack – banki road used for transportation of sand.
12. **Replenishment study:** Replenishment study for pre & post monsoon period was carried on 20.05.2022 and 21.11.2022 respectively. One base point was fixed with the help of hand held GPS and the coordinates and the RL of the base point was assigned for future reference. The coordinates of the base point is 2264292.454 N and 377988.080 E with RL. 26.00 m. Ground survey by total station

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of 11 numbers of cross sections for pre monsoon and post monsoon and 1 numbers of longitudinal sections were taken. Surveyed area was covered about 11.00Ha. within which the mining lease area is there. Width of the river measured at 27 places is 2270m (Average width). The quantity of sand replenishment within the source during the year 2022-23 as per surface area method is 69580cum and cross-sectional method is 78408cum.

13. **Baseline study details:** Baseline monitoring period was carried during March to May 2021.

PERIOD	March 2021 to May 2021	Applicable Standards
AAQ PARAMETERS AT 8 LOCATIONS	PM2.5 – 25.6 to 51.3 µg/cu.m	60 µg/cu.m
	PM10 – 43.3 to 77.6 µg/cu.m	100 µg/cu.m
	SO2 – 4.1 to 13.3 µg/cu.m	80 µg/cu.m
	Nox –12.3 to 28.3 µg/cu.m	80 µg/cu.m
Ground water Quality at 4 Location	pH – 6.8 to 7.1	6.5 to 8.5
	Total Hardness – 80 – 180 mg/l	600 mg/l
	Chloride - 20 to 50 mg/l	250 mg/l
	Fluorides – 0 to 0.05 mg/l	1.5 mg/l
	TDS – 90-350 mg/l	1000 mg/l
	Heavy metals (Cd <0.001, As <0.001, Hg<0.0005) mg/l	Heavy metals (Cd <0.003, As <0.01, Hg<0.001) mg/l
Surface water at 2 locations	pH – 8.0 to 8.1	
	Dissolved Oxygen – 7.1 to 7.3 mg/l	
	Biochemical Oxygen Demand – < 1 mg/l	
	Chemical Oxygen demand – < 5 mg/l	
Noise at 8 locations	Day (dBA Leq) 40.1 to 53.6	55
	Night (dBA Leq) - 32.4 to 46.3	45
Soil Quality at 4 locations	pH – 6.7 to 7.2, Potassium – 47 to 99.5 Kg/ Ha, Phosphorous – 23.2 to 42.7 Kg/ Ha, Nitrogen – 87.9-138.1 Kg/Ha, Electrical Conductivity- 155 - 300 ms/Cm	

14. **Water requirement:** For drinking & domestic purpose, water requirement will be 1 KLD, water requirement for green belt development and dust suppression will be 2 KLD. So total water requirement will be 3KLD.

15. **Power/fuel requirement:** No use of electric power as the operation will be done in daytime. However solar lights will be used for day to day living purposes. Trucks and Tractors will be used for transportation. The approximate quantity of the fuel/Diesel used per day is 100Lit/day.

16. **Greenbelt:** Plantation has been proposed on both sides of the roads as greenbelt to provide cover against dust emission. A massive plantation will be done along the riverbank of the lease area to mitigate the negative impact of mining.

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17. **Employment generation:** Due to the operation of mines, 54 people (out of which, 5nos. are skilled, 15nos. are semi-skilled, 30 nos. are unskilled and 4 nos are management & supervisory. will be directly employed in the mines and about 100 people will indirectly be employed for other allied activity related to mining.

18. **Project cost:** The estimated cost of the proposed project comes around 10lakh. EMP cost breakup is given in following table:

Sl. No.	Particulars	Cost/Annum (in Lakhs)
1.	Environmental Monitoring: Air, Noise 3 Point each and Water 2 points (Twice yearly)	Rs. 1.50
2.	Water sprinkling on the haul road	Rs. 1.00
3.	Green belt development in river bank	Rs. 1.00
4.	Occupational health	Rs. 0.50
Total		Rs. 4.00

19. **Environment Consultant:** The Environment consultant **M/s Kalyani Laboratories Pvt Ltd, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee.

20. The SEAC in its meeting held on dated 03-03-2023 recommended the followings;

A) The proponent may be asked to submit the following information and documents for further processing of the EC application.

- i) Copy of permission from the Irrigation Department for construction of temporary approach road on the water channel.
- ii) Another sand mine do exist near to the proposed quarry (around 200m away).The said sand mine is in operation having EC in the year 2018. Copy of such Environmental Clearance shall be submitted.
- iii) Justify, as to why this will not be considered under cluster approach.
- iv) Copy of lease documents.
- v) Lease granted in 2019, why this has not been considered for EC since now?

B) The proposed site shall be visited by Sub-Committee of SEAC to verify the cluster approach as well as mining activity, if any has been carried out at the site.

21. The proposed site was visited by the sub-committee of SEAC on 02.06.2023. Following are the observations of the sub-committee as mentioned below:

- a) PP, RI and Consultant were present along with other team members. The Mine is in Kathojodi river and there are no ongoing mining activities.
- b) The area was shown by the RI. It was observed that although patches of bushes available in the lease area, there is enough sand available for mining. The approach road to be used is in the opposite side of CDA of the river.
- c) There is a small stream at one end flowing (now almost dried up), so required permission from Irrigation department to be taken for transportation within the river.
- d) There is another sand mine under operation with a distance of about 200 m. R.I. and PP explained that the same was under Cuttack Tahasil and already got EC long back. Current site is under Baranga Tahasil. PP was asked to submit required documents as asked during presentation as it comes under cluster.
- e) No bridge or high-tension line is nearby and it is away from embankment.

22. 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 permission from the Irrigation Department for	Due Certificate vetted by the Office of the Executive Engineer, Prachi Division.	Copy of permission from

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	construction of temporary approach road on the water channel.	Bhubaneswar herewith attached as Annexure-I.	the Irrigation Department for construction of temporary approach road has been submitted.
2.	Another sand mine do exist near to the proposed quarry (around 200m away). The said sand mine is in operation having EC in the year 2018. Copy of such Environmental Clearance shall be submitted.	Copy of the EC letter of another existing sand mine herewith attached as Annexure-II.	Tangarhuda Sand Quarry (Kathajodi R/S) of Smt. Rajashree Behera is another sand mine granted EC vide letter no. 6183/SEIAA dated 01.11.2018.
3.	Justify, as to why this will not be considered under cluster approach.	The Tangarhuda Sand Quarry (Kathajodi R/S) over an area of 35.00 acres or 14.17 ha at village Tangarhuda, Tahasil Sadar Cuttack, District Cuttack is located at a distance of 210m from the lease area. The mines have obtained environment clearance from SEIAA, Odisha vide letter no. 6183/ SEIAA dated 01.11.2018. As this mine has already obtained EC. The application has been made for Bentakarpada Sand Mines only. However, during the preparation of EIA/EMP report the impact has been assessed taking into the consideration of both mines.	-
4.	Copy of lease documents.	Copy of lease document attached as Annexure-III.	submitted
5.	Lease granted in 2019, why this has not been considered for EC since now?	Though the mines have been granted in 2019 and the mining plan was approved in 2019. However due to change in connecting route (due to restriction of drinking water pipeline overhead project) to the mines we have modified the mining plan and also due to the Covid-19 situation, it took longer time and modified mining plan was approved in Dec2020. Then after we made the application for EC and obtained approved ToR in July 2021. After that the EC process occurs as usual & now, we are in the final stage of clearance.	submitted
6.	As per the suggestions of the Sub-Committee during their site visit on dated 02.06.2023. Replenishment study report along with satellite map of the	Replenishment Study Report attached as Annexure-IV. Satellite Map of the Bentakarpada Sand Bed attached as Annexure-V.	submitted

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proposed project required to be Submitted.

Considering the information furnished and the presentation made by the consultant, **M/s Kalyani Laboratories Pvt Ltd, Bhubaneswar** along with the project proponent, the SEAC recommended for grant of Environmental Clearance for the proposal for extraction of sand as per replenishment study i.e. 838.96 cum valid upto lease period with stipulated conditions as per **Annexure – D** and following specific conditions:

- a) Amended EIA Notification dated 25th July, 2018, Guidelines for sustainable sand mining, 2016 and Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India shall be adhered to in execution of Mining as per **Annexure – E**.
- b) Extraction should not exceed quantity replenished and depth as per replenishment study report. Regular replenishment study as per guidelines to be conducted and report to be submitted.
- c) Provision of Bio-toilet shall be made at the site.
- d) Avenue plantation and plantation on both sides of the haulage road in consultation with/ on the advice of concerned Forest Department, Government of Odisha & W.R. Department Government of Odisha as well.
- e) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.

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

1. **Whether SEAC recommended the proposal** –Yes, the SEAC recommended the proposal for EC in its meeting held on 19.06.2023 above mentioned additional conditions.

2. The proposal was placed in the 128th meeting of SEIAA held on 20.07.2023 and decided as follows:

- (i) The Authority observed that this proposal is coming in cluster with Tangarhuda Sand Quarry (Kathajodi R/S) of Smt. Rajashree Behera which is expiring on 31st October 2023. Therefore, the PP is required to prepare a cluster EIA / EMP taking into account for Bentakarpada River sand Bed and Tangarhuda Sand Quarry.
- (ii) The description in the replenishment quantity i.e. 69580 cum in the replenishment study report and 838.86 cum recommend by SEAC be clarified.

Decision of Authority: Approved

After detailed deliberations, the Authority decided to approved the cluster EMP proposed by PP with the annual cost as indicated below for a period of 5 years.

Sl.No	Description	Bentakarpada Sand Quarry	Tangarhuda Sand Mine
1.	Cost of EMP/EPM	Rs. 4.00 Lakhs/annum = Rs.20.00Lakhs for a period of 5 years	Rs. 4.40 Lakhs/annum= Rs.22 lakhs for a period of 5 years
2.	Cost of CER to address issues raised in Compliance with Public hearing as per MoEF & CC Notification Dtd.30.09.2020		Rs. 6.00 Lakhs
3.	CSR Cost	Rs.6.00 Lakhs	Rs.6.50Lakhs
	Total	Rs.29.00 lakhs	Rs.31.50Lakhs
	Grand Total for cluster	Rs.60.50Lakhs	

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18.08.2023**

Other stipulated conditions for grant of Environmental clearance as applicable for sand quarry is as follows for the proposed Bentakarpada Sand Quarry:

- Maximum depth of mining 2.5 meter and maximum quantity of extraction shall be limited to **69580 cum** in 1st year and **69580 cum** in 2nd year. PP shall submit Annual rate of replenishment study (ARRS) report through ORSAC empanel agency by December 2025.
- The validity of EC is for 1st year and 2nd year from date of issue 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 shall follow Enforcement & Monitoring Guideline for sand mining-2020 before and during operation of quarry.
- The Project Proponent (lease holder) shall deposit Rs.5,00,000/-, with the respective District Environment Society for raising 1000 plants (minimum @100 trees per Ha) of native species within 2 years in a suitable location preferably adjoining to quarry area.
- The PP will implement the EMP, CSR, Compliance of PH with a budgetary allocation as approved above.

APPROVED BY


Member Secretary, SEIAA


Member, SEIAA


Chairman, SEIAA

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AGENDA NO.132.11

Proposal No.	SIA/OR/IND2/415084/2023
Date of application	30.06.2023
File No.	415084/20-IND2/01-2023
Project Type	Fresh EC proposal
Category	B1
Project/Activity including Schedule No.	4 (b) - Coal tar processing units.
Name of the Project	Proposal for EC of M/s Utkal Hydrocarbon Pvt. Ltd. for proposed Greenfield project of Coal Tar Distillation of Capacity- 1,80,000 TPA. Phase- I: 60,000 TPA Coal Tar distillation project (to manufacture- 31,200 TPA Coal Tar Pitch, 15,000 TPA WFO & 12,000 TPA Anthracene Oil) & Phase- II: 1,20,000 TPA Coal Tar distillation Project (to manufacture 62,400 TPA Coal Tar Pitch, 30,000 TPA WFO, 24,000 TPA Anthracene Oil)
Name of the company/Organization	UTKAL HYDROCARBON PVT LTD Deepak Agrawal, Director 113, Park Street, 6th Floor, Kolkata
Location of Project	at Village- Siriapali PS & Tehsil - Kolabira, District - Jharsuguda
Date of ToR issued	28.09.2021
Name of Consultant	M/s. Visiontech consultancy Pvt. Ltd.

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 Utkal Hydrocarbon Pvt. Ltd. for proposed greenfield project of coal tar distillation of capacity- 1,80,000 TPA, Phase- I: 60,000 TPA coal tar distillation project (to manufacture- 31,200 TPA Coal Tar Pitch, 15,000 TPA WFO & 12,000 TPA Anthracene Oil) & Phase- II: 1,20,000 TPA coal tar distillation project (to manufacture 62,400 TPA coal tar pitch, 30,000 TPA WFO, 24,000 TPA Anthracene Oil) located at Village- Siriapali PS & Tehsil - Kolabira, District - Jharsuguda of Sri Deepak Agrawal.
2. **Category:** In pursuance of MoEF & CC, Government of India, EIA notification S.O. 1533, dated 14.09.2006 and amendments thereof, it is a 'Category -B' project, which falls under schedule 4 (b) - Coal tar processing units.
3. Allotment of land measuring 6.30 Acres in favor of M/s. Utkal Hydrocarbon Pvt. Ltd. from IDCO was issued vide letter no. IDCO/HO/P&A/LA- E/ 8227/2021- 2022/ 34546 dtd. 31/12/2022.
4. **TOR Details:** Terms of Reference (ToR) was granted by the concerned authority's vide SEIAA File No. SIA/OR/IND/62293/2021, dated: 28th September 2021.
5. **Public hearing details:** The Public hearing was held on 20th July 2022 near Govt. High School, Village - Siriapali, District- Jharsuguda, Odisha. The issues raised by the public in the public hearing are as follows: air pollution, water pollution, waste management, plantation, development of roads, local employment, women employment, health issues, medical facilities, peripheral development, education & playground. Total budget allocated as per the action plan is 92.93 lakhs.

- Location and connectivity:** Geographically the proposed project site is located at Village-Siriapali, PS & Tehsil - Kolabira, District - Jharsuguda, Odisha State falls under Survey of India Toposheet No. 73 B/16 bounded by geo coordinates - Latitude 21°49'40.08"N to 21°49'40.00"N and Longitude 84° 5'29.21"E to 84° 5'29.02"E. Nearest National Highway, NH-200 is at a distance of 20m, N; Nearest Railway Station is Jharsuguda Railway Station, 8 km, NW and Jharsuguda Airport is at 11 km NW. Nearby water bodies are Kharkhari Nala - 0.50 KM (S), Telen River- 4.40 KM (SE), Bheden River - 8.0 KM (WSW).
7. There is no National Parks, Sanctuaries, Migratory Corridors of Wild Animals in 10 km buffer are whereas list of Reserve Forest identified such as Shiriyapali R.F – Adjacent (E), Katikela R.F – 1.50 KM (SW), Ghichamura R.F- 5.45 KM (S).
8. **Land requirement:** Total Land Area involved – 18.14 Acres (7.34 Ha.) [For Phase-I: 5.38 Acres & Phase-II: 12.76 Acres]. Net Plant Area - 17.60 Acres (7.12 Ha.) (This excludes the untouched Nalla of 0.54 Acres).
9. **Raw material requirement:** The Crude Coal Tar, 180000 TPA (Phase-I 60,000 & Phase-II 12,0000) will be sourced from Rourkela Steel Plant-Rourkela, Nilachal Ispat Nigam Limited - Jajpur, Bhushan Steel Limited, IISCO Steel Plant, Durgapur Steel plant, Bokaro Steel Plant, Bhilai Steel Plant, Visakhapatnam Steel Plant etc.
10. **Process Description**
Coal Tar Pitch – The crude coal tar is fed into distillation vessel for batch-wise distillation process. During the distillation, volatile oil is collected into receiver through goose neck and condenser. The condensed oil is collected in the receiver, which is categorized into two parts as per boiling point, WFO (Wide Fraction Oil) and Anthracene-1 or heavy PAH (Polvaromatic Hydrocarbon). The residue remains in the vessel is the Pitch which will be dispatched after testing as per customer's satisfaction. The fuel used in Phase-I & Phase-II is Furnace Oil of capacity 12 KLD & 24 KLD respectively.
11. **By - Product Recovery Process** – Here the main raw material is WFO which is taken from Coal Tar Pitch processing units. The WFO is boiled up into the reboiler. The vapour is purified by the liquid contact through column packing. The collection is received as follows from the top one by one fraction maintaining the reflux ratio and temperature through intermediate testing.
- Phenolic Oil – 145-200^oC
 - Napthalene Oil – 210-220^oC
 - Wash Oil – 230-270^oC
 - Heavy Creosote Oil – 270-310^oC
 - Anthracene 2 – 310^oC & above
12. **Baseline details:** Baseline Study Period was from March 2021 to May 2021.
- a) **Particulate Matter (PM₁₀):** The maximum value for PM was 89.7 μ g/m³ observed at AAQ-8. The reason for high value may be due to presence of nearby Industry (M/s. Vedanta Alumina) 0.73 Km. The minimum value was 43.8 μ g/m³ observed at Kaputikra Village (AAQ-3) as there is no major activity nearby.
- b) **Particulate Matter (PM_{2.5}):** The maximum value observed was 49.7 μ g/m³ at AAQ-8. Reason for the reason for high value may be due to presence of nearby Industry (M/s. Vedanta Alumina) at (approx.) 0.73 Km. Minimum value observed was 23.5 μ g/m³ at AAQ-3.
- c) **Sulphur dioxide (SO₂):** The maximum value observed was 17.2 μ g/m³ at AAQ-8

whereas minimum value of $5.6 \mu\text{g}/\text{m}^3$ was observed at AAQ-3. The limits were well within the NAAQs standards.

- d) **Oxides of Nitrogen (NOx):** The maximum value observed was at $29.2 \mu\text{g}/\text{m}^3$ at AAQ-8 and the minimum value of $9.5 \mu\text{g}/\text{m}^3$ was observed at AAQ-3. The limits were well within the NAAQs standards.
- e) **Carbon Monoxide (CO):** The maximum value of $0.63 \text{ mg}/\text{m}^3$ observed at AAQ-8. The minimum value of $0.1 \text{ mg}/\text{m}^3$ was observed at AAQ-3.
- f) **Ambient Noise Level:** The summary of the Ambient Noise Monitoring Result shows the Noise level within the permissible limits for all the locations. At N1, during day time maximum noise level recorded was 71.23 dB(A) and during night the maximum noise recorded was 65.96 dB(A). Ambient noise reaches 46.23 to 71.23 dB(A) during day time and 37.03 to 65.96 dB(A) during night time.
- g) **Incremental GLC level (under controlled condition)** $\text{PM}_{10} = 5.04214 \mu\text{g}/\text{m}^3$ (Level at of the Project Site); $\text{PM}_{2.5} = 2.3734 \mu\text{g}/\text{m}^3$ (Level at of the Project Site); $\text{SO}_2 = 2.55367 \mu\text{g}/\text{m}^3$ (Level at of the Project Site); $\text{NO}_x = 1.91726 \mu\text{g}/\text{m}^3$ (Level at of the Project Site)
- h) **Surface Water:** pH is inclined towards alkaline side of the spectrum with highest value of 8.4 in SW-8 and lowest value of 7.1 in SW7. Biological Oxygen Demand (BOD) is within the permissible limits except at SW-5&7 in and varies between 2.0 mg/l to 6.1 mg/l. Chemical Oxygen Demand (COD) varies from 5.6mg/l and 128 mg/l. All heavy metals like Arsenic, Lead, etc. are below detectable levels.

13. **Water requirement:** The total water requirement of proposed plant is 85 KLD which will be sourced from Ground water. Requirement for Phase-I is 32.8 KLD and for Phase- II 52.2 KLD. Requesting letter to allow groundwater permission for operation and other domestic activities issued vide letter no. UHPL/22-23/05 dtd. 10.11.2022.
14. **Wastewater management:** There will be no wastewater generation from the plant as the Closed-Circuit Cooling system will be adopted. Boiler blow down and DM Plant regeneration wastewater will be treated in Neutralization tank and will be mixed in a Central Monitoring Basin (CMB). The treated effluent from CMB will be utilized for dust suppression, ash conditioning and for greenbelt development.
15. **ETP/STP:** Water will be generated from the process Condenser which will go to Effluent Treatment Plant of capacity 20 KLD will be installed to treat the 13.5 KLD effluent. About 13.5 KLD will be recycled and reused in the process. The wastewater discharged will be utilized for vegetation & dust suppression inside the plant after treatment. For wash water & sewage water, STP of 15 KLD capacity will be installed and the STP treated water will be used for gardening & sprinkling of water on roads.
16. **Power requirement:** The total power requirement of the proposed plant is envisaged as 1200 KVA. Approx. 450 KVA for Phase-I & 750 KVA for Phase-II, sourced from TATA Power Western Odisha Distribution limited (TPWODL). Application to The Executive Engineer TPWOD, Jharsuguda for initially 650 KVA electric supply vide letter no. UHPL/22-23/06 dtd. 10.11.2022 had been submitted. For back-up DG set of capacity for Phase-I 200 KVA & Phase-II is 300 KVA will be installed. Total solar power provision for this project is 3 KW.
17. **Greenbelt:** 3% of the total plant area i.e 6.15 Acres out of 17.6 Acres will be developed as greenbelt/plantation all around the plant boundary, roadside, office, building & open stretches within the premises. Plantation will be started along with the construction. Tree density of 2500 trees per hectare (500 nos. of plant per acre) with local board leaf specification will be planted.
18. **Manpower:** It is estimated that the manpower requirement for the proposed plant will be about