

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL
COMMITTEE, ODISHA HELD ON 03RD MAY, 2023**

The SEAC met on 03rd May, 2023 at 03:00 PM by both physical and Virtual mode (VC) through video conferencing in Google Meet under the Chairmanship of Sri Sashi Paul. The following members were present in the meeting.

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| 1. Sri Sashi Paul | - | Chairman (through VC) |
| 2. Dr. K. Murugesan | - | Member Secretary |
| 3. Dr. Rabi Narayan Patra | - | Member (through VC) |
| 4. Dr. Chittaranjan Panda | - | Member |
| 5. Prof. (Dr.) H.B. Sahu | - | Member (through VC) |
| 6. Prof. (Dr.) Abanti Sahoo | - | Member (through VC) |
| 7. Er. Fakir Mohan Panigrahi | - | Member (through VC) |
| 8. Prof. (Dr.) B.K. Satpathy | - | Member |
| 9. Dr. K.C.S Panigrahi | - | Member (through VC) |
| 10. Shri Jayant Kumar Das | - | Member (through VC) |

CONSIDERATION OF OLD PROPOSALS (COMPLIANCE RECEIVED):

The compliances furnished by the proponents were verified by the members through e-mail and also proceedings of the meeting were confirmed by the members through e-mail. The decision of the committee on case-to-case basis as follows:

ITEM NO. 01

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR HATURIPAL SAND QUARRY OVER AN AREA OF 26.50 ACRES OR 10.72 HA IS LOCATED IN VILLAGE HATURIPAL, TAHASIL-TALCHER IN ANGUL DISTRICT BY SRI TOPHAN MOHANTY- EC

1. This proposal is for environmental clearance for Haturipal Sand Quarry over an area of 26.50 acres or 10.72 ha is located in village Haturipal, Tahasil - Talcher in Angul district of Sri Tophan Mohanty.
2. **Category:** The project is categorized in Category-B under item 1(a)-Mining of Minerals in the EIA notification, 2006 and its subsequent amendments.
3. The Mining plan has been approved by The Joint Director of Geology, Zonal survey, Dhenkanal Vide letter no – 668, on dated 01.06.2020 in favour of Tahsildar, Angul.
4. The lease was granted to Mr. Tophan Mohanty being the successful bidder for tenure of 5(Five) years from the date on which this executed deed is registered.
5. **Public hearing details:** The Public Hearing meeting was held in respect of environmental Impact assessment of Hathuripal Brahamni Nadi Sand Quarry on 30.06.2022 at Hathuripal Matha of Talcher Tahsil of Anugul district. Issues raised were Dust suppression and Water Pollution Control, Afforestation Programme, Local employment opportunity, Provision for repair and maintenance of village roads, Strict adherence of sand mining guidelines, Supply of sand to the locals with reasonable price/free of cost, Speed restriction during school timing. The budget earmarked for the action plan is 16.10 lakhs.

Proceedings of the SEAC meeting held on 03.05.2023 (Old proposals – compliance received)

Environmental Scientist, SEAC

6. **TOR details:** Terms of Reference (ToR) Issued by State Impact Assessment Authority (SEIAA) Orissa, Vide Letter. No. SEACSEIAA/OR/MIN/65843/2021 dated 27.12.2021
7. **Location and connectivity:** Hathuripal Sand Quarry ML area 10.72ha. situated at Hathuripal village of Tahasil - Talcher of District-Anugul, Odisha. The lease area under reference featured in the Survey of India Topo sheet no. 73H/5 and is on Khata No. 83, Plot No.100/343, Kissam-Nadi. The geo coordinates of the lease area is 20°53'24.78"N to 20°53' 58.65"N 85°15'19.39"E to 85°15'29.97"E. The area is located 3.0 km from District Headquarters Talcher and 100 Km from State Capital Bhubaneswar. Nearest railway station is at Talcher railway station at a distance of 4.0Km. The lease area can be approached from NH:53 & NH:149 at a distance of 2 Km. Nearest Airport is Bhubaneswar Airport which is at a distance of 100Km.
8. **Replenishment report:** The replenishment of Sand has been calculated by volumetric survey method. Amount of sand Replenishment within the quarry area is 10368 Cum/annum & proposed production is 14400cum/annum as mentioned in Replenishment Study Report i.e. approx. 72 % replenishment can be done. Therefore, the areas for sand exploitation within the lease area has been divided into two zones, one for First-Third-Fifth years' mining and the other for Second-Fourth years' mining. In the applied lease area replenishment depends upon the rainfall, if adequate amount of sand will not replenish during monsoon, then excavation of sand will be limited to the quantity which will be equivalent to the replenished material up to a depth of 0.3-0.4 mtrs.
9. **Reserves:** As estimated, the proved geological reserve of River Sand is 84640Cu.m and proved mineable reserve is 45430Cu.m. During the plan period, a total of 45000cum (saleable) River Sand will be produced as per the mining plan.
10. **Mining method and production:** Total lease area is 26.50 acres(10.72ha) of non- forest Govt. land of "Nadi" kism and the lessee is going to work within the said area for plan period of five years with a total production of 45000Cu.m of River Sand @ 9000 Cum/annum. Mining shall be done by open cast Manual method and transportation through dumpers and tractors. The mineral extraction will be done for a period of 200 days in a year. The Lessee has a proposal to transport of sand is by Tractors/Dumpers of 8-10 tonnes capacity
11. **Water requirement:** Total water approx, 5 KLD will be required for different purposes like Domestic, Dust suppression, plantation purposes & sourced from facility of Govt. Water Resource.
12. **Power/fuel requirement:** The power required for the office is minimal, shall be taken from the General Electric supply of the area. However, if required for lighting in the project area at night power will be sourced from State Grid and for same it is estimate as 1.0 KVA. 0.012KLD diesel is required as fuel.
13. **Baseline study:** Baseline information with respect to Land, Water, Air, Noise, Biological and Socio-economic quality status in the study area were collected by conducting primary sampling / field studies during winter season Dec,20-Feb 2021.

Ambient Air Quality

PM10 ranges within 71.0-39.0 µg/m³, P 2.5 ranges within 38.0-13.0 µg/m³, SO₂ ranges within 7.3-4.1 µg/m³ & NO_x ranges within 14.7-8.4 µg/m³.

Proceedings of the SEAC meeting held on 03.05.2023 (Old proposals – compliance received)

The parameters monitored at the project area as per NAAQ standards are found to be within limits. It may be observed that all parameters at all stations are well within the limits prescribed by Central pollution control Board.

Noise Levels

- a) Day time noise levels were varying from 51.40 dB(A) and 40.00 dB(A)
- b) Daytime noise levels varied from 39.2 dB(A) to 30.0 dB(A)

Surface water

- a) The pH value ranges from 6.98 to 7.56 and within the limits (6.5 – 8.5) of IS 2296:1992.
- b) The sulphate content in the collected surface water ranges from 7.4 mg/l to 9.4 mg/l.
- c) The chloride content in the collected surface water sample ranges from 10.7 mg/l to 16.3 mg/l. DO of the collected surface water sample ranges from 6.3mg/l to 7.0 mg/l.
- d) BOD of the collected surface water sample ranges from mg/l to 2.1 mg/l.

Ground water

- a) The ground water results of the study area indicate that the pH range varies between 6.98 and 7.74
- b) The Total Dissolved Solids range is varied between 49 mg/l – 74 mg/l for the ground water.
- c) The chloride content in the ground water for study area ranges between 1.4 mg/l – 2.6 mg/l.
- d) The sulphate content of the ground water of the study area varies between 1.6 mg/l – 2.5 mg/l.

Soil quality analysis

- a) Soil Samples collected from 5 identified locations indicate the soil is Sand Loamy type and the pH value is ranging from 6.21 to 7.11.
- b) Nitrogen content ranged from 0.042 mg/Kg to 0.084 mg/kg and Phosphorous ranged from 0.018 Kg/Ha to 0.034 Kg/Ha.

14. **Greenbelt:** About 7500 saplings of local species will be planted under the green belt (safety zone) and non-mineralized area for five years.

S. No.	Saplings to be planted	Budget in INR	Species	Place of Plantation
1	2500	90000	Neem, Peepal, Mango, Shisham, Sirish, Babool, Chakunda	Along the lease approach roads, schools and public buildings in Sirigida village and if any social forestry programme will be provided the contribution
2	2500	90000		
3	2500	90000		
4	Maintenance	20000		
5	Maintenance	20000		
Total	7500	3,10,000		

Proceedings of the SEAC meeting held on 03.05.2023 (Old proposals – compliance received)

15. **Manpower requirement:** Total manpower requirement for the proposed project is 13 nos (For supervisor & statutory person 1 nos of person, skilled labourers (operator & helper) 3 nos of person, semi- skilled labourers 3 nos. & unskilled labourer 6 nos). Indirect manpower requirement is 10 numbers of persons.
16. **Project cost:** The cost of project is 30.0Lakhs. EMP capital cost of the project is 16.10Lakhs(capital) and recurring cost is 6.15Lakhs/Annum.
17. **Environment Consultant:** The Environment consultant **M/s EHS 360 Labs Private Limited, Chennai** along with the proponent made a presentation on the proposal before the Committee.
18. The SEAC in its meeting held on 03-03-2023 dated recommended the followings:

A) The proponent may be asked to submit the followings for further processing of EC application;

- a) Benchmark details and layout of replenishment study.
- b) In Replenishment Study Report, 14400cum/year is the approved capacity mentioned whereas in mining plan 9000cum/year is proposed. Which is correct? This shall be clarified.
- c) Land break-up such as water, rocks & sand area details.
- d) In DSR and Lease Document, Plot No. & Khata No. are mis-matching. This has to be clarified.
- e) Cadastral certificate from Tahasildar showing lease area.
- f) Road connectivity to the site with Map.
- g) Distance from road bridge.
- h) KML file shows the lease area is surrounded by water with small sand deposit, this has to be clarified.
- i) KML file also shows the site is stony area and rocky area, this has to be clarified.

B) The proposed site shall be visited by Sub-Committee of SEAC to verify the followings;

- a) Actual sand deposit in the lease area & water deposit surrounding the lease area as shown in KML file.
- b) Environmental settings of the lease area.
- c) Mining activity, if any carried out in the lease area.
- d) Road connectivity to the lease area.
- e) Distance of the bridge from the boundary of the lease area.
- f) Cluster approach if any.

19. 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
a)	Benchmark details and layout of replenishment study.	Benchmark details with layout updated in the replenishment report. Replenishment report is attached as Annexure-1 .
b)	In Replenishment Study Report, 14400cum/year is the approved capacity mentioned whereas in mining plan 9000cum/year is proposed. Which is correct? This shall be clarified.	In the replenishment report the approved capacity mentioned as 14400 cum/year is nothing but 14400 Metric Ton/year (considering the tonnage factor 1.6 i.e. 9000 cum x1.6 = 14400 Ton). In the Mining Plan the annual production is mentioned as 9000 cum/year. So please consider the annual production as 9000 cum. Replenishment report is attached as Annexure-1 .
c)	Land break-up such as water, rocks & sand area details.	Map showing the Land use break up details is attached as Annexure – 2 .
d)	In DSR and Lease Document, Plot No. & Khata No. are mis-matching. This has to be clarified.	There may be typographical error in DSR. As per the Lease document Khata No. is 83, Plot no is 100/343.
e)	Cadastral certificate from Tahasildar showing lease area.	Authenticated cadastral Map showing the lease area is attached as Annexure-3 .
f)	Road connectivity to the site with Map.	The Mine connected to NH-149 at Nuagaon through PWD road. Map showing the road connectivity is attached as Annexure-4 .
g)	Distance from road bridge.	The distance from mines to nearest bridge is 2.92 km. Map showing the distance from mines to bridge is attached as Annexure-5 .
h)	KML file shows the lease area is surrounded by water with small sand deposit, this has to be clarified.	After verification of KML file and further mapping it is to be clarified that the potential mining area is coming 4.50 Ha i.e. 41.97%, water area is coming 2.15 Ha i.e. 20 % and stony area is 3.70 Ha i.e. 34.51%. Considering half the of the sand deposit area i.e. 2.25 Ha out of 4.50 Ha we can achieve the targeted production 9000 Cum/Annum easily. (22500 m ² X 0.4 average thickness of sand = 9000 cum/annum). Google Map showing potential sand deposit area is attached as Annexure-6
i)	KML file also shows the site is stony area and rocky area, this has to be clarified.	After verification of KML file and further mapping it is to be clarified that the potential mining area is coming 4.50 Ha i.e. 41.97%, water area is coming 2.15 Ha i.e. 20 % and stony area is 3.70 Ha i.e. 34.51%.

Proceedings of the SEAC meeting held on 03.05.2023 (Old proposals – compliance received)

Environmental Scientist, SEAC

After detailed discussion, the SEAC decided to take decision on the proposal after receipt of the following from the proponent followed by a site visit of the Sub-Committee of SEAC.

- i) Compliance of the PP that there may be typographical error in DSR as far as plot no and khata no mismatch is concerned is not acceptable. It needs to be certified by the authorities approving the DSR and necessary corrected copy of DSR duly approved should be submitted.

ITEM NO. 02

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR SIRIGIDA SAND QUARRY (ML AREA 7.28 HA) FOR PRODUCTION OF 10700 CUM/ANNUM OF RIVER SAND IN BRAMHANI RIVERBED AT VILLAGE – SIRIGIDA, TAHASIL –TALCHER, DISTRICT- ANUGUL, SMT SANGHAMITRA BHUTIA - EC

1. This proposal is for Environmental Clearance of Sirigida Sand Quarry (ML Area 7.28 ha) for production of 10700 Cum/annum of River Sand in Bramhani River Bed at village – Sirigida, Tahasil –Talcher, District- Anugul, Smt Sanghamitra Bhutia.
2. **Category:** As per EIA Notification,2006, and subsequent amendments, the project falls under category B1 of Schedule 1(a) - Mining of minerals as the lease area is more than 5.0 Ha.
3. The mining lease of Sirigida Sand Quarry has been granted to Smt. Sanghamitra Bhutia , resident of village - Sirigida, Tahasil - Talcher, Anugul, being successful bidder, vide letter no- 4610, dated 20.11.2020 from Tahslidar cum-Competent Authority, Talcher Odisha for a lease period of 5 (five) years.
4. The Mining Plan is approved vide memo no 1454 on dated 21.05.2020 by the Joint Director Geology, Zonal Survey, Dhenkanal. The mining plan has prepared as per OMMC, 2016 by the RQP, Sri B. B Khandual, (Regn.No.RQP/OD/049/2016), for the plan period 2020-2025.
5. The preparation of district survey report of river sand mining in Anugul district has been prepared in accordance with Clause II of Appendix X of the notification and New Sairat source namely Sirigida Sand Quarry of Khata No.142, Pl. No.1791 area of 18Ac. has been included.
6. **TOR details:** Terms of Reference (TOR) was issued by State Impact Assessment Authority (SEIAA) Orissa, Vide Letter. No.58822/106-MINB1/02-2021; 08.07.2021 for Sirigida Devi River Sand Quarry.
7. **Public hearing details:** The public hearing meeting was held on 27.04.2022 at 11:00 am at Sirigida Yatra Padia of Talcher Tahsil of Anugul district. Issues raised are dust suppression and water pollution control, afforestation programme, local employment opportunity, provision for repair and maintenance, strict adherence of sand mining guidelines of village roads. Budget earmarked for action plan of public hearing is 16.10 lakhs.
8. **Location and connectivity:** Sirigida Sand Quarry over an area of 18.00 acres or 7.28 ha is in village Sirigida, Tahasil - Talcher in Angul district of Odisha. The proposed project activity will be carried out on the dry river bed of the Brahmani river. The lease area is bounded by Latitude $21^{\circ} 00'46.07''$ N to $21^{\circ} 00'55.79''$ N & Longitude $85^{\circ} 13'19.56''$ E to $85^{\circ} 13'32.80''$ E in Plot No 1791 & Khata No 142. It is a part of the area covered in the Survey of India Toposheet No. 73G/4. The lease area is approachable about 1.41 km from Kulei-pitiri Road. The nearest railway station is Scotlaland Railway station at a distance of 3.72 Km and Talcher Railway station is at 9.28km.

Proceedings of the SEAC meeting held on 03.05.2023 (Old proposals – compliance received)

Environmental Scientist, SEAC

There is no existence of public road and railway line within the lease area. The nearest airport is Biju Patnaik International Airport, Bhubaneswar at a distance of 95 km. Nearest National Highway is NH-149 is ~3.98 Km and NH-53 is 8.53 km away from the ML area. Talcher town is at 6.73 kms.

9. **Reserves:** As estimated, geological reserve of sand is 151082cum and mineable reserve is 74289cum. During the plan period, a total of 53,500cum sand will be extracted.
10. **Method of mining and production:** The total lease area is 7.28 ha. of Govt. land at village Sirigida under Talcher Tahasil of Angul District, Odisha. The method of mining is open cast manual. Total Production for plan period of five years is 53,500 cum and annually 10700cum sand will be mined out. The bench height will be 1.0m and width will be along the base of deposit. The average thickness of the deposit is 1.0m. It is proposed to transport of sand is by Tractors/tractor trolley of 8-10 tonnes capacity.
11. **Baseline study:** Baseline study was carried out during period Dec 2021 to February 2022,
12. **Air quality monitoring** - PM₁₀ ranges within 71.8-38.1 µg/m³, PM_{2.5} ranges within 39.0-13.5 µg/m³, SO₂ ranges within 7.5-4.1 µg/m³ & NO_x ranges within 15.1-9.1 µg/m³. The parameters monitored at the project area as per NAAQ standards are found to be within limits. It may be observed that the all parameters at all stations are well within the limits prescribed by Central pollution control Board.
13. **Noise quality monitoring** – During day time noise monitoring results ranged from 44.38 dB(A) to 53.38 dB(A) and in night time 35.43 dB(A) to 41.36 dB(A).
14. **Surface water monitoring** – The surface water results were compared with IS 2296:1992 standard and in respect of CPCB water Quality Criteria for designated best use. Based on comparison study of test results with Surface water Quantity Standards (IS 2296 Class A), it is interpreted that water qualities of studied locations are classified under Class E, which can be used for irrigation industrial cooling, and controlled waste disposal. The pH value ranges from 6.92 to 7.56 and within the limits (6.5 – 8.5) of IS 2296:1992. The sulphate content in the collected surface water ranges from 7.4 mg/l to 10.6mg/l. The chloride content in the collected surface water sample ranges from 12.4 mg/l to 19.3 mg/l. DO of the collected surface water sample ranges from 6.1 mg/l to 7.3 mg/l. BOD of the collected surface water sample ranges from 1 mg/l to 2.1 mg/l.
15. **Ground water monitoring** – Physio-chemical characteristics of ground water samples collected from the selected villages. The Ground water results were compared with drinking water standards (IS10500:2012).The ground water results of the study area indicate that the pH range varies between 6.82 and 7.7. It is observed that the pH range is within the limit of IS10500:2012.The Total Dissolved Solids range is varied between 92 mg/l – 122 mg/l for the ground water. All the samples are well within the permissible limit of IS 10500: 2012. The acceptable limit of the chloride content is 250 mg/l and permissible limit is 1000mg/l. The chloride content in the ground water for study area ranges between 1.4mg/l – 2.2 mg/l. It is observed that all are well within the permissible limit of IS10500:2012.The desirable limit of the sulphate content is 200 mg/l and permissible limit is 400mg/l. The sulphate content of the ground water of the study area varies between 1.4mg/l – 2.3 mg/l. It is observed that all the samples are within the permissible limit of IS 10500: 2012.Based on comparison study of test results with drinking water standard, it is interpreted that water qualities of studied locations meet with the drinking water standards as per IS 10500: 2012.

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Environmental Scientist, SEAC

16. **Soil quality monitoring** - Soil Samples collected from 5 identified locations indicate the soil is Sand Loamy type The pH of the soil samples ranged from 6.23 to 7.15. Indicating that the soils are slightly acidic to moderately alkaline in nature. Nitrogen content ranged from 0.043 % to 0.082 %. Phosphorous ranged from 0.015 % to 0.034 %.
17. **Replenishment Study Report** - The estimations was done with three nos. of pits dug earlier of following dimensions i.e., pits of 10 x 10 x 2 meter, 12 x 12 x 2 meters, 12 x 12 x 2 meter made during pre-monsoon season to see what depth is filled up with sand after monsoon season, which was measured. The result shows that there is an average of 0.29 meter decrease in depth of pit, that means replenishment rate is 71 % (average). In Northern side of the Quarry Replenishment is found to be less (0.66 m) in comparison to Southern side (0.76m).

Comparison between planned production with Replenished sand

A	Area of Potential Sand Zone (in m2) including safety zone	75541
B	Area of Potential Sand Zone (in m2) Excluding safety zone	53574
C	Sand Thickness (in m)	1
D (AxC)	Geological Reserve in Cum	75541
E (BxC)	Minable Reserve in Cum	53574
F	Quantity Extractable after Replenishment in Cum	38038

18. **Water requirement:** The total water requirement will be approximately 5.0KLD for different purposes like domestic, dust suppression, plantation purposes. Water will be withdrawn from tube wells from nearby village.
19. **Power requirement:** No electrical power shall be required for operations as the mining will be worked out during day time only. Minimal power required for office shall be taken from the General Electric supply of the area. Dumpers, tractors will be used for transportation. So, the approximate quantity of the fuel used per day is 80 liter/day.
20. **Greenbelt:** It is proposed to plant 7500nos. of saplings during the plan period and a budget of Rs.3,10,000 Lakh has been proposed for plantation.
21. **Manpower:** Total manpower requirement is 17 nos. For supervisor & statutory person 1 no. of person, skilled laborers (operator & helper) 3 nos. of persons, semi- skilled laborers 3 nos. & unskilled laborer 10 nos.
22. **Project cost:** The estimated cost of the project is 25 lakhs. EMP capital cost is 16.10 lakhs and recurring cost is 6.15 lakhs/annum and CSR Budget 5 lakhs/annum.
23. **Environment Consultant:** The Environment consultant **M/s EHS360 LABS PVT. LTD., Chennai** along with the proponent made a presentation on the proposal before the Committee.
24. The SEAC in its meeting held on dated 17-02-2023 decided to take decision on the proposal after receipt of the following from the proponent:
- A) The proponent may be asked to submit the followings for further processing of EC application;**
- i) RL values for Pre-monsoon and Post-monsoon of replenishment study along with section coordinates and benchmarks details.

Proceedings of the SEAC meeting held on 03.05.2023 (Old proposals – compliance received)

B) The proposed site shall be visited by Sub-Committee of SEAC to verify the followings;

- i) Environmental settings of the lease area.
- ii) Mining activity, if any carried out in the lease area.
- iii) Sand deposit in lease area as KML file shows lease area is surrounded by water and instream sand mining is not allowed.
- iv) Road connectivity to the lease area.
- v) Distance of the road and railway bridge from the boundary of the lease area.
- vi) Cluster approach if any.
- vii) Distance of embankment from sand deposit.
- viii) Any other issues including local issues.

25. 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
1.	RL values for Pre-monsoon and Post-monsoon of replenishment study along with section coordinates and benchmarks details.	The Pre-monsoon and Post-monsoon of replenishment study along with section coordinates and benchmarks details is attached as Annexure-1 .

After detailed discussion, the SEAC decided to take decision on the proposal after a site visit of the Sub-Committee of SEAC.

ITEM NO. 03

PROPOSAL OF ENVIRONMENTAL CLEARANCE CONSTRUCTION OF SRI JAGADGURU KRIPALU 400 BEDED MULTI-PURPOSE HOSPITAL & RESEARCH CENTER WITH TOTAL PLOT AREA OF 56372.71 SQ.M I.E. 13.930 ACRES AND PLOT AREA OF 37504 SQ.M AT JAGADGURU KRIPALU UNIVERSITY, BANARA, CUTTACK DISTRICT OF SMT SULAKSHYANA DAS – EC

1. This proposal is for Environmental Clearance Construction of Sri Jagadguru Kripalu 400 Beded Multi-Purpose Hospital & Research Center with total plot area of 56372.71 Sq.m i.e. 13.930 Acres and plot area of 37504 Sq.m at Jagadguru Kripalu University, Banara, Cuttack district of Smt Sulakshyana Das.
2. The project falls under category “B” or activity 8(a) Building and Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. Jagadguru Kripalu University is proposing for establishment of 400 bedded hospital and research center in outskirts of Cuttack City at Vill: Baanara, Banki, Cuttack District, Odisha. The plot area meant for construction of 400 bedded hospital will be established over an area of 13.930 Acres i.e. 56372.71 Sq.m with a total builtup area of 37404 Sq.m. Total parking provided for the project will be 11300 sq.m open parking (30% of builtup area) and 11274 sq.m green cover area (20% of Plot area). The land is of Gharabari kissam without any forest land included.
4. **Location and Connectivity** – The project is located at Plot No. 3654, 3656, 3858/4922, 3858/5001, Khata No- 771/462; Kissam – GharabariMauza Banara, Via: Munduli, Tahasil:

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Dampada. The Hospital will be constructed within the existing campus of JKU. The Geographical co-ordinate of the project site are Latitude: 20° 24' 49.21" - 20° 25' 3.35" N, Longitude: 85° 45' 22"- 85° 45' 22"37 E. and finds place in Toposheet no. 73H/11. The nearest road is Banki Cuttack road at 1km. Nearest Railway station Baranga at 7km. Nearest River is Mahanadi at 2.5km. Munduli Barage at 3.5km. Chandaka Reserve forest at 1km. The nearest Ecologically sensitive area is Chandaka Elephant Sanctuary which is located at 1 Km from the project. The project site is located outside the ESZ boundary of the sanctuary.

5. **Water Requirement** - Total water requirement will be 677 cum per day out of which fresh water requirement will be 406 Cu.m Per day. Water will be sourced from ground water through bore well. Out of the total water requirement of 677 KLD, 406 KLD (60%) of fresh water, which will be met through bore well for drinking, washing and other domestic purpose. 271 KLD (40%) of water will be made available from treated waste water for Flushing and gardening purpose. Application to CGWA for withdrawal of ground water is under process. The treated waste water will be completely used for green belt development, HVAC use and washing purpose.
6. **Waste Water Management** - The waste water generated from the project will be 271 KLD which will be treated through a Sewage Treatment Plant of 370 KLD. Another ETP is proposed for treatment of infectious waste water with capacity of 40 KLD.
7. **Rain water Harvesting** - For water conservation rain water harvesting pits/tank is proposed which consists of 10 nos of each having dimension 35.325cu.m rain water recharge pits.
8. **Power Requirement** - Based on the Electrical Load calculation, overall maximum demand load is anticipated as approximately 2.5 MVA. 162 KW of solar power generation proposal is included in the project which reduces 7% of the total power requirement. Total power requirement for the project is 2406 KW Backup power requirement by DG = 1 x1250 kVA + 2 x750 kVA = 2750 kVA. Backup power generated = 2475 KW. For complete power back up 1x 1250 and 2x750 kVA DG set is required
9. **Green belt** - Plantation will be made over an area of 11274 Sq.Mt with 2500 saplings. The plantation will completed within 3 years of construction period.
10. **Solid Waste Generation** - During the implementation of the project the biomedical waste generated from the project will about 2100 Kg. The Bio medical waste generated will be collected, segregated and disposed as per Biomedical waste management rule, 2016. 3 Nos of solid waste segregation room will be constructed for separation of biological waste and other solid waste. Bio medical waste will be disposed through authorized agencies (RAMKY) (Authorized by Odisha State Pollution Control Board)
11. **Fire Fighting system** - The project includes Static water storage tanks and Fire pumps, Wet Riser system, Hose Reels, Portable Fire extinguishers, Automatic Sprinkler system. There is the proposal for 100 Cu.m UG tank and 10 cu.m OHT for fire fighting. The internal road will be 7m wide road which can serve for movement of fire vehicles. In the circulation plan of the project, there will be proper entry and exit points for systematic control of the vehicular movement within the medical complex.
12. All the materials used in construction of this building are strictly in accordance with BIS/ISI specifications and norms conforming to National Building Code, 2016 covering all the safety

Proceedings of the SEAC meeting held on 03.05.2023 (Old proposals – compliance received)

Environmental Scientist, SEAC

factors including earthquake and cyclone. The project obtained structural safety certification from the competent authority regarding the construction of the building.

13. **Project Cost** - Total cost of the project is Rs.90.76 crores and the capital cost for EMP is 95 lakhs and the recurring cost will be 27 Lakhs per annum.
14. The Environment Consultant **M/s Kalyani Laboratories Pvt. Ltd. Bhubaneswar** along with the proponent made a detailed presentation on the proposal before the Committee on 02.09.2022.
15. The SEAC in its meeting dated 02-09-2022 decided to take decision on the proposal after receipt of certain information / documents from the proponent followed by site visit of the sub-Committee of SEAC.
 - a) Backup calculation to attain Zero liquid Discharge concept.
 - b) Details of Rain water Harvesting.
 - c) Location, Source and utilisation/ disposal of 40KLD ETP affluent.
 - d) Provision for Incinerator.
 - e) Location of STP, disposal of STP water with no integration of STP & ETP.
 - f) Backup calculation of 175KLD water used in HVAC.
 - g) Parking area in terms of ECS for 4 wheelers and 2 wheelers and their location for staffs, patients and visitors.
 - h) Traffic Study Report to be submitted duly vetted by institute of repute.
 - i) Layout plan and width of road for movement of Fire Tender.
 - j) Detailed calculation of greenbelt with breakup and dimensions.
 - k) Backup calculation of DG sets of 2750KW.
 - l) Layout map showing nearest drain and it's distance.
 - m) Layout of internal drainage map and their fallout if any to external public drain.
 - n) Copy of permission of the concerned authority of the drain to discharge if any water from project to the nearby drain.
 - o) Breakup of total built up area of the whole project area including university.
 - p) Permission/Undertaking that total built up area will not exceed 150000sq.mt.
 - q) Approval Letter from Fire Safety Deptt.
 - r) Details of accreditation of the University.
 - s) Construction status of the project of the university such as prior to 2006 and after 2006 and till now.
16. The proposed site was visited by the sub-committee of SEAC on 14.11.2022. Following are the observations of the sub-committee:
 - a) The proponent and consultants showed us the proposed land for the establishment of 400-bedded hospital & research centre.
 - b) The land has not been developed at all and hence, no construction work has been started.
 - c) The proponent has been advised to submit lay out map for parking, ETP, STP, entire drainage system, entry & exit gates, etc., while submitting for EC.

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17. 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)	Backup calculation to attain Zero liquid Discharge concept.	Water requirement, Water balance and details of Zero Liquid discharge has been attached as Annexure 1	Annexure 1 is attached and complied.																																
b)	Details of Rain water Harvesting.	Details of rain water harvesting is attached as Annexure 2	Annexure 2 is attached and complied.																																
c)	Location, Source and utilisation/ disposal of 40KLD ETP affluent.	Details of ETP, Location Source, and utilisation/ disposal of 40KLD ETP affluent is attached as Annexure 3	Annexure 3 is attached and complied.																																
d)	Provision for Incinerator.	We will install an incinerator of 250 Kg/hr capacity. The incinerator will be provided with Bagfilter and emission will be maintained as per the CPCB guideline. <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>S. No.</th> <th>Parameter</th> <th colspan="2">Standards</th> </tr> <tr> <th>(1)</th> <th>(2)</th> <th>(3)</th> <th>(4)</th> </tr> <tr> <td></td> <td></td> <td>Limiting concentration in mg Nm³ unless stated</td> <td>Sampling Duration in minutes, unless stated</td> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Particulate matter</td> <td>50</td> <td>30 or 1NM³ of sample volume, whichever is more</td> </tr> <tr> <td>2.</td> <td>Nitrogen Oxides NO and NO₂ expressed asNO₂</td> <td>400</td> <td>30 for online sampling or grab sample</td> </tr> <tr> <td>3.</td> <td>HCl</td> <td>50</td> <td>30 or 1NM³ of sample volume, whichever is more</td> </tr> <tr> <td>4.</td> <td>Total Dioxins and Furans</td> <td>0.1ng TEQ/Nm³ (at 11% O₂)</td> <td>8 hours or 5NM³ of sample volume, whichever is more</td> </tr> <tr> <td>5.</td> <td>Hg and its compounds</td> <td>0.05</td> <td>2 hours or 1NM³ of sample volume, whichever is more</td> </tr> </tbody> </table>	S. No.	Parameter	Standards		(1)	(2)	(3)	(4)			Limiting concentration in mg Nm ³ unless stated	Sampling Duration in minutes, unless stated	1.	Particulate matter	50	30 or 1NM ³ of sample volume, whichever is more	2.	Nitrogen Oxides NO and NO ₂ expressed asNO ₂	400	30 for online sampling or grab sample	3.	HCl	50	30 or 1NM ³ of sample volume, whichever is more	4.	Total Dioxins and Furans	0.1ng TEQ/Nm ³ (at 11% O ₂)	8 hours or 5NM ³ of sample volume, whichever is more	5.	Hg and its compounds	0.05	2 hours or 1NM ³ of sample volume, whichever is more	-
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e)	Location of STP, disposal of STP water with no integration of STP & ETP.	There will be no integration of STP with ETP. The Location of STP is given as Annexure 4 . <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2">ZERO LIQUID DISCHARGE</th> </tr> </thead> <tbody> <tr> <td>Capacity of STP</td> <td>370 KLD</td> </tr> <tr> <td>Treated waste water from STP</td> <td>271 KLD</td> </tr> <tr> <td>Utilization of Treated water for Flushing (Dual Plumbing)</td> <td>81 KLD</td> </tr> <tr> <td>Utilization of treated water for green belt development</td> <td>15 KLD</td> </tr> <tr> <td>Utilization of treated water for HVAC</td> <td>175 KLD</td> </tr> <tr> <td colspan="2">No treated water will be discharged outside the premises</td> </tr> </tbody> </table>	ZERO LIQUID DISCHARGE		Capacity of STP	370 KLD	Treated waste water from STP	271 KLD	Utilization of Treated water for Flushing (Dual Plumbing)	81 KLD	Utilization of treated water for green belt development	15 KLD	Utilization of treated water for HVAC	175 KLD	No treated water will be discharged outside the premises		Annexure 4 is attached.																		
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f)	Backup calculation of 175KLD water used in HVAC.	Back up calculation of 175 KLD water used in HVAC is attached as Annexure 5 .	Annexure 5 is attached.																																
g)	Parking area in terms of ECS for 4 wheelers and 2 wheelers and their location for staffs, patients and visitors.	Parking area in terms of ECS for 4 wheelers and 2 wheelers and their location for staffs, patients and visitors is attached as Annexure 6 .	Annexure 6 is attached but location/layout not showed.																																
h)	Traffic Study Report to be submitted duly vetted by institute of repute.	Detail traffic study report is attached as Annexure 7 .	Traffic Study Report findings state LOS – B. Traffic study Report is not vetted by reputed institute.																																

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	Layout plan and width of road for movement of Fire Tender.	Layout plan and width of road for movement of Fire Tender attached as Annexure 8 .	Annexure 8 is attached
j)	Detailed calculation of greenbelt with breakup and dimensions.	Detailed calculation of greenbelt with breakup and dimensions is attached as Annexure 9 .	Layout of the greenbelt with proposed species is given but calculation of greenbelt with breakup is not visible in layout. Only total greenbelt area 11274sqm is given.
k)	Backup calculation of DG sets of 2750KW.	Detail back up calculation for DG set requirement is attached is 2750 KW. Annexure 10 .	Solar power calculation, generation and use in % of total power is not submitted.
l)	Layout map showing nearest drain and its distance.	There is no proposal for discharge of waste water from the project to outside. The entire treated water will be utilized for watering of the plantation area, HVAC makeup water and sprinkling purpose.	Layout map showing nearest drain and its distance is not given.
m)	Layout of internal drainage map and their fallout if any to external public drain.	There is no proposal for discharge of waste water from the project to outside. The entire treated water will be utilized for watering of the plantation area, HVAC makeup water and sprinkling purpose. Internal drainage plan is attached as Annexure 11 .	Annexure 11 is attached
n)	Copy of permission of the concerned authority of the drain to discharge if any water from project to the nearby drain.	There is no proposal for discharge of waste water from the project to outside. The entire treated water will be utilized for watering of the plantation area, HVAC makeup water and sprinkling purpose.	Complied.
o)	Breakup of total built up area of the whole project area including university.	Detail breakup of the built-up area is attached as Annexure 12 .	Annexure 12 is attached
p)	Permission/Undertaking that total built up area will not exceed 150000sq.mt.	Undertaking attached as Annexure 13 .	Annexure 13 is attached
q)	Approval Letter from Fire Safety Deptt.	Approval from Fire safety department will be obtained after the completion of construction work.
r)	Details of accreditation of the University.	Details of accreditation of the University is attached as Annexure 14 .	Annexure 14 is attached

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
s)	Construction status of the project of the university such as prior to 2006 and after 2006 and till now.	Construction status of project of the university such as prior to 2006 and after 2006 and till now is attached as Annexure 15 .	Annexure 14 is attached mentioning in undertaking that there was no construction of projects prior to 2006 and construction started of University started from 2017.

Sub-Committee Observation:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
a)	Lay out map for hospital road network, starting from entry gate to exit gate.	Layout plan of the hospital road is attached Annexure A .	-
b)	Lay out map for parking area for 4 wheelers and 2 wheelers for staffs, patients and visitors.	Lay out map for parking area for 4 wheelers and 2 wheelers for staffs, patients, and visitors attached as Annexure A .	-
c)	Traffic Study Report to be submitted.	Detail traffic study report is attached as Annexure 7 .	-
d)	Layout plan for Firefighting gadgets and width of road for movement of Fire fighting vehicles.	Layout plan for Firefighting gadgets and width of road for movement of Fire fighting vehicles attached as Annexure 8 .	-
e)	Detailed calculation of greenbelt with breakup and dimensions. Backup calculation of DG sets of 2750KW.	Detail back up calculation for DG set requirement is attached is 2750 KW. Annexure 9 .	Annexure 10 is attached power and DG set backup calculation.
f)	Details of Rain Water Harvesting.	Details of rain water harvesting is attached as Annexure 2 .	-
g)	Layout map for entire drainage system showing nearest public drain and its distance.	There will be no discharge of water from the hospital to outside drain. The drainage system map is attached as Annexure 3 .	-
h)	Location, Source and utilisation/disposal ETP and STP effluents, special emphasis on Zero Liquid Discharge concept.	Water requirement, Water balance and details of Zero Liquid discharge has been attached as Annexure 1 .	-
i)	Details of solar power calculation, generation and use in % of total power.	Details of solar power calculation, generation and use in % of total power attached as Annexure 10 .	Not submitted
j)	Stack height vs building height may be furnished.	The maximum height of the building will be 15 m and the height of the DG stack proposed is 30m which is much above the building height.	-
k)	Layout for green belt.		Given

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

- a) Location / layout showing Parking area in terms of ECS for 4 wheelers and 2 wheelers for staffs, patients and visitors.
- b) Traffic study Report submitted is not vetted by reputed institute. Hence, vetted Traffic Study Report shall be submitted.
- c) Layout of the greenbelt with proposed species is given but calculation of greenbelt with breakup is not visible in layout. Only total greenbelt area 11274sqm is given. Hence, a visible layout showing details to be submitted.
- d) Solar power calculation, generation and use in % of total power is not submitted. Hence, it shall be submitted.
- e) Layout map showing nearest drain and its distance is not given. Hence, it shall be submitted.
- f) Construction status of the project of the university such as prior to 2006 and after 2006 and till now has not been submitted. Hence, it shall be submitted.

ITEM NO. 04

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR 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 - EC

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.

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6. **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 area 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

11. **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-I 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.
12. **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°C
 - Napthalene Oil – 210-220°C
 - Wash Oil – 230-270°C
 - Heavy Creosote Oil – 270-310°C
 - Anthracene 2 – 310°C & above

13. **Baseline details:** Baseline Study Period was from March 2021 to May 2021.

- a) **Particulate Matter (PM₁₀):** The maximum value for PM was 89.7µg/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 43.8µg/m³ observed at Kaputikra Village (AAQ-3) as there is no major activity nearby.

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- b) Particulate Matter (PM_{2.5}):** The maximum value observed was 49.7µg/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 23.5µg/m³ at AAQ-3.
- c) Sulphur dioxide (SO₂):** The maximum value observed was 17.2µg/m³ at AAQ-8 whereas minimum value of 5.6µg/m³ was observed at AAQ-3. The limits were well within the NAAQs standards.
- d) Oxides of Nitrogen (NOx):** The maximum value observed was at 29.2µg/m³ at AAQ-8 and the minimum value of 9.5µg/m³ was observed at AAQ-3. The limits were well within the NAAQs standards.
- e) Carbon Monoxide (CO):** The maximum value of 0.63 mg/m³ observed at AAQ-8. The minimum value of 0.1 mg/m³ 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)PM₁₀ = 5.04214 µg/m³ (Level at of the Project Site);PM_{2.5} = 2.3734 µg/m³ (Level at of the Project Site);SO₂ = 2.55367 µg/m³ (Level at of the Project Site); NOx = 1.91726 µg/m³ (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.
- 14. 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.
- 15. 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.
- 16. 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.

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17. **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.
18. **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.
19. **Manpower:** It is estimated that the manpower requirement for the proposed plant will be about 75 persons i.e., for Phase-I - 35 numbers and for Phase-II - 40 numbers.
20. **Project cost:** The total investment for the proposed project works out to approximately Rs. 37 Crores. The EMP Capital cost is Rs. 1.43 Crore & Recurring is 0.30 Crore per annum. 2.5 % of the project cost i.e., INR 92.5 Lakhs has been earmarked under CER activities.
21. **Environment Consultant:** The Environment consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee on 17.02.2023.
22. The SEAC in its meeting dated 17.02.2023 decided to take decision on the proposal after receipt of certain information/documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

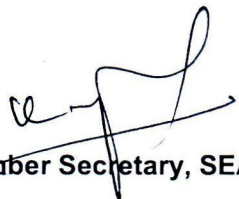
Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
a)	Layout of garland drain and drainage network.	Revised layout attached as Annexure –I , which shown garland drain & drainage network with separate colour.
b)	SOP for firefighting/fire safety.	SOP for Fire Fighting & Fire safety management of M/s. Utkal Hydrocarbon Pvt Ltd, attached as Annexure-II .
c)	Permission/License from explosive department for storage of flammable products.	M/s. Utkal Hydrocarbon Pvt Ltd, do not handle or use any explosive or flammable material. Undertaking for the same attached as Annexure-III .
d)	SOP for dyke design, spill over, maintenance, storage layout, Sulphur content, design limit, cooling tower blow down water monitoring.	SOP for dyke design, spill over, maintenance, Storage Layout, Sulphur Content, cooling tower blow down water monitoring details are attached as Annexure-IV .
e)	Fate of refining loss quantity	Vapour pressure of Coal Tar and its major components at normal temperature lies to 0.2 to 0.5 ranges and the distillation process is now-a-days completely close circuit process with vacuum application. Besides any vapour releasing point will be to 0.5 ranges and the distillation process is now-a-days completely close circuit process with

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		vacuum application. Besides any vapour releasing point will be equipped with VOC catcher point followed by scrubbing system. So the vapour loss will be less than 0.2 and most of them will be trapped at scrubber. Therefore, releasing the VOC at atmosphere will be very minimal
f)	Layout of sump and settling pond to be provided.	Revised layout attached as Annexure-I which show two settling Pond which is I & II.
g)	Solid Waste management practice.	Management for Solid waste attached as Annexure –V . Also a declaration Letter for authorization of Hazardous waste is enclosed with this Annexure.
h)	Mitigation measures for Issues raised in public hearing to be addressed	Mitigation measures for issues raised in public hearing as attached Annexure –VI .

Considering the information furnished and the presentation made by the consultant, **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per **Annexure – A** in addition to the following specific conditions.

- i) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- ii) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- iii) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.


Member Secretary, SEAC

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CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR 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- EC.

STATUTORY COMPLIANCE:

1. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
2. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
3. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of schedule -I species in the study area).
4. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
5. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
6. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

AIR QUALITY MONITORING AND PRESERVATION

1. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.
2. The project proponent shall install system carryout to Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutions released (e.g PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ main NO_x in reference to SO₂ and NO_x emissions) with and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120⁰ each), covering upwind and downwind directions.
3. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six- monthly monitoring report.

4. For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
5. To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines. Bag filter (PTFE/pulse jet) shall be installed to control the emissions.
6. National Emission Standards for Petrochemical (Basic & Intermediates) issued by the Ministry vide G.S.R. 820 (E) dated 9th November, 2012as amended time to time shall be followed.
7. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
8. Proper care shall be taken for transportation of crude coal tar to the project proponent's storage tanks.
9. No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.

WATER QUALITY MONITORING AND PRESERVATION

1. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986.
2. The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
3. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
4. As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
5. Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.
6. Sewage Treatment Plant (STP) shall be provided for treatment of domestic wastewater to meet the prescribed standards.
7. Rainwater harvesting system shall be set up in the premises and water shall be used for various industrial purpose in the unit.

NOISE MONITORING AND PREVENTION

1. Noise level survey shall be carried as per the prescribed guideline and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

2. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

ENERGY CONSERVATION MESURES.

1. Provide solar power generation on rooftops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.
2. Provide LED lights in their offices and residential areas.

WASTE MANAGEMENT

1. Kitchen waste shall be composed or converted to biogas for further use.
2. The proponent shall undertake waste minimization measures as below:-
 - a) Metering and control of quantities of active ingredients to minimize waste.
 - b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - c) Use of automated filling to minimize spillage.
 - d) Use of Close Feed system into batch reactors.
 - e) Venting equipment through vapour recovery system.
 - f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

GREEN BELT

1. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.

PUBLIC HEARING AND HUMAN HEALTH ISSUES

1. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the State Level Expert Appraisal Committee (SEAC).
2. Emergency preparedness plan based on the Hazed identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
3. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

5. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act. Workers shall be provided with adequate safety kits/mask for protection from carbon black/coal tar dust, if any, occur in the factory.

CORPORATE ENVIRONMENT RESPONSIBILITY

1. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements / deviation / violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental/forest / wildlife norms / conditions and / or shareholder's / stake holders. The copy of the board resolution in this regard shall be submitted to the SEIAA, Odisha and to the MoEF&CC as a part of six-monthly report.
3. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the SEIAA, Odisha / the Regional Office, MoEF&CC along with the Six-Monthly Compliance Report.
5. Self-Environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

MISCELLANEOUS

1. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
2. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the SEIAA, Odisha and Regional Office, MoEF&CC, Govt. of India along with the Six Monthly Compliance Report.
3. The unit shall make the arrangement for protection of possible fire hazards during

manufacturing process in material handling. Fire-fighting system shall be as per the norms.

4. The copies of the environmental clearance shall be submitted by the project proponents to the heads of local bodies, Panchayats and municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
5. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including result of monitored data on their website and update the same on half-yearly basis.
6. The project proponent shall monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
7. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
8. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
9. The project proponent shall inform the SEIAA, Odisha and Regional Office of MoEF&CC, Govt. of India, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
10. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
11. No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Odisha.
12. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act/1986.
13. The SEIAA, Odisha may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
14. The SEIAA, Odisha reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
15. The Regional Office of MoEF&CC, Govt. of India shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
16. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991

with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

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