SEAC MEETING WHICH WAS SCHEDULED TO BE HELD ON 15.12.2021 AT 10:30 AM WAS PREPONED TO 14.12.2021 AT 10:30 AM

PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE, ODISHA HELD ON 14th DECEMBER, 2021

The SEAC met on 14th December, 2021 at 10:30 AM through video conferencing in Google Meet under the Chairmanship of Sri. B. P Singh. The following members were present in the meeting.

1.	Sri. B. P. Singh	-	Chairman
2.	Dr. K. Murugesan	-	Secretary
3.	Dr. D. Swain	-	Member
4.	Prof. (Dr.) P.K. Mohanty	-	Member
5.	Prof. (Dr.) H.B. Sahu	-	Member
6.	Sri. J. K. Mahapatra	-	Member
7.	Sri. K. R. Acharya	-	Member
8.	Prof. (Dr.) B.K. Satpathy	-	Member
9.	Dr. Sailabala Padhi	-	Member
10.	Dr. K.C.S Panigrahi	-	Member

Draft proceeding of the meeting was finalized by the members through e-mail and also final proceeding of the meeting was confirmed by the members through e-mail. The agenda-wise proceedings and recommendations of the committee are detailed below.

ITEM NO. 01

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR ANUARY SAND QUARRY MINING ON RIVER MAHANADI OVER AN AREA OF 5.059 HA (12.50ACRE) IN VILLAGE PATUGADADHARPUR UNDER BANKI TAHASIL, CUTTACK DISTRICT, ODISHA (FINAL EIA/EMP SUBMITTED) OF SRI PATITA PABAN SWAIN – EC

The project proponent didn't attend the meeting. The SEAC decided to defer the case to next meeting.

ITEM NO. 02

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR MADHAPUR SAND QUARRY OVER AN AREA OF 12.50 AC. / 5.059 HA. ON RIVER MAHANADI LOCATED AT VILLAGE – MADHAPUR, UNDER PATHARACHAKADA GP, TAHASIL – BHAPUR, DISTRICT - NAYAGARH OF SRI. BENUDHAR PRADHAN (FINAL EIA/EMP SUBMITTED) – EC

1. The proposal is for Environmental Clearance of Madhapur Sand Quarry over an area of 12.50 ac. / 5.059 ha. on river mahanadi located at village – Madhapur, Under Patharachakada GP, Tahasil – Bhapur, District - Nayagarh of Sri. Benudhar Pradhan

2. As per EIA Notification dated 14.09.06 and its subsequent amendments S.O.141 (E) on dated 15.1.2016, the project falls under, Category “B1”.
3. The proposed Madhapur Sand Quarry project is for river bed sand mining on Mahanadi River at village Madhapur under Bhapur Tahasil of Nayagarh District, Odisha, over an area of 5.059Ha or 12.50 Acres.
4. The TOR was issued for this project vide letter No. 9660/SEIAA, dt. 19.11.2020.
5. Public Hearing was conducted on 17.04.2021 (4.00 pm) at Campus of Bhapur , tahasil, in Nayagarh District, Odisha for the project and the final EIA /EMP report is submitted to SEIAA, Odisha.
6. The Madhapur Sand Quarry lease has been proposed to be granted by the Tahasildar, Bhapur to the applicant (successful bidder) for minor mineral (River Sand) for five years. The Mining Plan of the Mining Project has been approved by Deputy Director of Geology, Bhubaneswar, Odisha vide memo no.6390/DG on dated 18.10.2017.
7. The lease area is bounded by longitude: 85^0 13’ 49.20”E to 85^0 13’ 55.20”E & latitude: 20^0 21’14.20”N to 20^0 21’ 23.10”N. It is a part of the area covered in the Survey of India Toposheet No. 73-H/3 in Khata No- 1237, Plot No - 2, Kisam - Nadi. The lease area is located at a distance of 10.0 km from Tahasil Bhapur. Village Madhapur is at a distance of 1.0 km from to the mining area. District Nayagarh is at a distance of 30.0 km. Bhapur is the nearest place from the lease area for all infrastructure facilities like hospital, school, bus service, market. The east coast railway line is at a distance 35.0 kms from the lease area. NH-224 is at a distance of 25.0 km and SH-65 is at a distance of 6.0 km from the lease area. There is no national park, wild life sanctuary, eco sensitive areas and industrial area situated within 10Kms radius of the lease area.
8. The Geological Reserve is 30200cum and Mineable Reserve is 22800cum. The Mining will be done with semi mechanized method for excavation & loading into trucks/ tractors for transport to the users’ destination. The quarry will be worked for five years. The average proposed rate of production is 4000 Cu. m per annum (in five years, total production will be 14730Cu.m). Excavation & loading of sand into the trucks/tractors will be done by manual means.
9. Replenishment Study Report concludes that replenishment rate is 95.09% i.e. Amount of sand Replenishment within the quarry area is 14007Cum & proposed production is 14730 cum.
10. **Water Requirement** – Water requirement for the project will be 1 KLD for different purposes like domestic, Dust suppression, plantation purposes. Water will be withdrawn from tube wells from nearby village.
11. **Power Requirement** - No use of electric power as the operation will be done in day time. However solar lights will be used for day to day living purposes. 0.08 KLD diesel is required as fuel.
12. **Green Belt Development**: Out of the total area, green belt will be developed over an area of 3.11ha. and 3000 tress will be planted **along the safety zone and haulage road and**

nearby

13. **Employment Potential** - Total number of employee will be around 10 which includes skilled, semi-skilled & unskilled category in the mine.
14. Baseline data collected during the period Dec, 2019 to Feb, 2020.

15. PM10 ranges within 37.2- 75.4 µg/m³, PM2.5 ranges within 13.5 – 39.0 µg/m³, SO2 ranges within 4.0-9.1 µg/m³ & NOx ranges within 9.0-15.1 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.
16. The project cost is 25 lakhs and EMP Capital Cost is 14.30lakh and EMP Recurring Cost is 5.60 lakhs.
17. The Environment consultant **M/s Ardra Consulting Services Pvt. Ltd. Bhubaneswar** along with the proponent has made a presentation on the proposal before the Committee.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Ardra Consulting Services Pvt. Ltd. Bhubaneswar**, the SEAC decided to take decision on the proposal after receipt of the following information / documents from the proponent.

i. Width of the river.
ii. Extraction area be indicated in absolute value and as percentage of ML area against the norm of Sand Mining by MoEF&CC, Govt. of India.
iii. "No Mining Zone", Safety Zone, distance of ML boundary from river bank, distance of ML boundary from nearest habitation, distance of haulage road from village road vis-s-vis the norm for the some in a tabular form including the distance from river bridge or NH/SH or large infrastructure (both upstream & downstream).
iv. Considering extraction at least 10% less than deposition, revised mining plan duly approved be submitted indicating revised extraction in this tonnage & volume year wise for 05 years.
v. Replenishment study undertaken be submitted including sand grain analysis as suggested during presentation.
vi. Details of proposed ramp on river bank (construction details) for movement of vehicles be submitted.
vii. Confirmation of stone patching and planation in it or a stretch of river bank expected to have erosion with dimension & drawing / sketch be submitted.

viii. Erosion study be undertaken within one year of EC (if granted) and submitted to SEIAA and course correction be made as & if necessary in confirmation with RQP / Mining authority and W.R Deptt, Govt of Odisha.

ix. Details of Avenue Planation as suggested be submitted.

x. SOP of sprinkling be submitted along haulage road.

xi. Provision of Bio-Toilet to be enclosed & confirmed.

xii. Compliance to specific condition of ToR be submitted.

ITEM NO. 03

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR NUAPALLI SAND QUARRY OVER AN AREA OF 7.867 HA./19.44 AC. ON KUSUMI RIVER LOCATED AT VILLAGE-NUAPALLI, TAHASIL- BHAPUR, DIST-NAYAGARH OF SRI. RAJESH KUMAR PRADHAN – EC

1. The proposal is for Environmental Clearance for Nuapalli Sand Quarry over an area 19.44acres or 7.867 ha located in village Nuapalli, under Bhapur Tahsil of Nayagarh District, Odisha (Final EIA/EMP Submitted) of Sri Rajesh Kumar Pradhan.
2. As per EIA Notification dated 14.09.06 and its subsequent amendments S.O.141 (E) on dated 15.1.2016, the project falls under, Category “B1”.
3. The proposed Nuapalli Sand Quarry project is for river bed sand mining on Kusumi River at Village-Nuapalli, Tahasil- Bhapur, Dist-Nayagarh, Odisha, over an area of 7.867 Ha./19.44 Ac.
4. The TOR was issued for this project vide letter No. 9648/SEIAA, dt. 19.11.2020.
5. Public Hearing was conducted on 17.04.2021 (10.00 am) at Campus of Bhapur , tahasil, in Nayagarh District, Odisha for the project and the final EIA /EMP report is submitted to SEIAA, Odisha.
6. The Quarry lease has been proposed to be granted by the Tahasildar, Bhapur to the applicant (successful bidder) for minor mineral (River Sand) for five years vide order no. 2192 dated- 03.08.2018. The Mining Plan of the Mining Project has been approved by Deputy Director of Geology, Directorate of Geology, Bhubaneswar, Odisha vide memo no.11786 on dated 20.11.2018.
7. The lease area is bounded by longitude: 85° 10’ 03.00” E to E 85° 11’ 01.20” & latitude: 20° 14’ 03.00”N to N 20° 14’ 48.70”. It is a part of area covered in the Survey of India Toposheet No. 73-H/4. in Khata No.- 231, Plot No - 01, 859 Kisam - Nadi. The lease area is located at a distance of 8.0 km from Tahasil Bhapur. Village Nuapalli is at a distance of 1.0 km from to the mining area. District Nayagarh is at a distance of 28.0 km. Khandapada is the nearest place from the lease area for all infrastructure facilities like hospital, school, bus service, market. The east coast railway line is at a distance 28.0 kms from the lease area. NH-224 is at a distance of 26.0 km and SH-1 is at a distance of 24.0 km from the lease area. There is no national park, wild life sanctuary, eco sensitive areas and industrial area situated within 10Kms radius of the lease area.

8. The Geological Reserve is 48840 cum and Mineable Reserve is 26017cum. The Mining will be done with semi mechanized method for excavation & loading into trucks/ tractors for transport to the users' destination. The quarry will be worked for five years. The average proposed rate of production is 2800 Cum per annum (in five years, total production will be 12000Cu.m). Excavation & loading of sand into the trucks/tractors will be done by manual means.
9. Replenishment Study Report concludes that replenishment rate is 98% i.e. Amount of sand Replenishment within the quarry area is 11760Cum & proposed production is 12000 cum.
10. **Water Requirement** – Water requirement for the project will be 1.5 KLD for drinking & domestic purpose, green belt development and dust suppression. Ground water will be used for drinking and domestic purpose whereas surface water will be used for green belt development and dust suppression. Water will be withdrawn from tube wells from nearby village.
11. **Power Requirement** - No use of electric power as the operation will be done in day time. However solar lights will be used for day to day living purposes. 0.08 KLD diesel is required as fuel.
12. **Green Belt Development**: Out of the total area, green belt will be developed over an area of 2.61ha. and 6600 tress will be planted**.**
13. **Employment Potential** - Total number of employee will be around 8 which includes skilled, semi-skilled & unskilled category in the mine.
14. Baseline data collected during the period Dec, 2019 to Feb, 2020.
15. PM10 ranges within 77.0-38.0 µg/m³, PM2.5 ranges within 38.0-13.0µg/m³, SO2 ranges within 7.3-4.1 µg/m³ & NOx ranges within 14.9-9.5 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.
18. The project cost is 25 lakhs and EMP Capital Cost is 14.30lakh and EMP Recurring Cost is 5.60 lakhs.
16. The Environment consultant **M/s Ardra Consulting Services Pvt. Ltd. Bhubaneswar** along with the proponent has made a presentation on the proposal before the Committee.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Ardra Consulting Services Pvt. Ltd. Bhubaneswar**, the SEAC decided to take decision on the proposal after receipt of the following information / documents from the proponent.

i. Width of the river.
ii. Extraction area be indicated in absolute value and as percentage of ML area against the norm of Sand Mining by MoEF & CC.
iii. "No Mining Zone", Safety Zone, distance of ML boundary from river bank, distance of ML boundary from nearest habitation, distance of haulage road from village road vis-

s-vis the norm for the some in a tabular form including the distance from river bridge or NH/SH or large infrastructure (both upstream & downstream).

iv. Considering extraction at least 10% less than deposition, revised mining plan duly approved be submitted indicating revised extraction in this tonnage & volume year wise for 05 years.

v. Replenishment study undertaken be submitted including sand grain analysis as suggested during presentation.

vi. Details of proposed ramp on river bank (construction details) for movement of vehicles be submitted.

vii. Confirmation of stone patching and planation in it or a stretch of river bank expected to have erosion with dimension & drawing / sketch be submitted.

viii. Erosion study be undertaken within one year of EC (if granted) and submitted to SEIAA and course correction be made as & if necessary in confirmation with RQP / Mining authority and W.R Deptt, Govt of Odisha.

ix. Details of Avenue Planation as suggested be submitted.

x. SOP of sprinkling be submitted along haulage road.

xi. Provision of Bio-Toilet to be enclosed & confirmed.

xii. Compliance to specific condition of ToR be submitted.

ITEM NO. 04

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. SHUVAM CONSTRUCTION PVT. LTD. FOR CONSTRUCTION OF HOUSING PROJECT OF 2B+G+14 HIGH RISE RESIDENTIAL APARTMENT BUILDING IN MOUZA - GHATIKIA, BHUBANESWAR, DIST KHURDA, ODISHA OVER TOTAL BUILT UP AREA OF 56722.86 SQ.M OF SRI KANTILAL PATEL (DIRECTOR) - EC

1. The proposal is for Environmental Clearance of M/s. Shuvam Construction Pvt. Ltd. for construction of Housing Project of 2B+G+14 High Rise Residential Apartment Building in Mouza - Ghatikia, Bhubaneswar, Dist - Khurda, Odisha over total built up area of 56722.86 sq.m.
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. M/s Shuvam Construction (P) Ltd proposed 2B+G+14 High Rise Residential Apartment Building project is 2.652 Acres/10732.17sqm. of land at Plot No.: 4016, 4023/ 9099, 4010/10999, 4010/ 9061, 3971, 3969, 4020, 4025, 4019, 4017, 4022, 4026, 4021, 4027, 4018, 4023, 3967/ 9599, 4024, 3967, 3968, 3970, 4011/9062, 4011, 4023/9086, 4010/10998, 4028, khata no-1678, 607, 988/958, 803, 720, 1101, 1678, 238, 1988/87, 1988/86, 535,

1228, 1332, 1123, 1139, 1988/957, Kissam - Gharabari, Mouza-Ghatika, Dist-Khordha Odisha in favour of M/s Shuvm Construction (P) Ltd..

4. **Location and connectivity** - The proposed site is located at Ghatikia, Bhubaneswar, Odisha. The Geographical co-ordinate of the project site is Latitude - 20°16'15.78"N & Longitude - 85° 46'44.81"E. The project site is well connected with Ghatikia main road and The National Highway-16 is located at the distance of 0.3 Km & 1.4 km. The nearest Railway station is Bhubaneswar Railway Station at a distance of approximately 5.2 Km from the project site. The nearest Airport is Biju Patnaik International Airport, Bhubaneswar which is at a distance of 5 Km from the project site. The site is located adjacent to the local landmarks, Kalinga Nagar, Shympur etc. There is no structure or encroachments on the site. The site is easily accessible from NH-16 Road.
5. The site is coming under development plan of Bhubaneswar Development Authority.
6. The Building Details Of The Project:

Particular	Proposed	Permissible
Project Name	Proposed Housing Project (High Rise Residential Apartment Building Project)	
Plot Area	10,732.17 Sqm	--
Ground Coverage	3,053.12 Sqm (28.55%)	--
Total Built up Area	56,722.86 Sqm	--
Total FAR Area	44,996.50 Sqm	--
FAR	4.192	7.0
Maximum Height	50.93 meter	--
No. of recharge pit	14	--
Drive Way Width	7.5 meter	--
Parking Area	22,308.36 Sqm	13,498.95 Sqm (30 % of FAR Area)
Green Belt Area	2,641.18 Sqm (24.61 % of Plot area)	2,146.4 Sqm (20% of Plot area)
Power/Electricity Requirement & Sources	Total Power - 1482 KW Power from Solar – 78.5 KW TPCODL- 1403.5 KW	--
No. of DG sets	2 x 500 KVA	--
Fresh Water requirement & Sources	141 KLD Source: Ground Water	--
Sewage Treatment & Disposal	STP Capacity 200 KLD	--
Estimated Population-Residential, Floating/visitors	Residential Population: 1520 Nos. Floating Population: 152 Nos.	--

7. **Water requirement**: Fresh make up of 141 m3/day will be required for the project which will be sourced from Ground water. Waste water of 180.16 KLD will be treated in a STP of 200 KLD capacity, which includes primary, secondary and tertiary treatment.
8. **Waste water details**: Every building generates wastewater amounting about (80 % of fresh water consumed + 95 % of flushing water). The major source of wastewater includes the grey

water from kitchens, bathrooms and black water from toilets. It is expected that the project will generate approx. 180.16 m3/day of wastewater. The wastewater will be treated in the STP of capacity of 200KLD provided within the apartment. Out of which 171.16 m3/day will be recycled within the project for flushing (70.7 m3/day), landscaping (10.5 m3/day), STP loss (9.0 m3/day) & Dust suppression in Road Area (15 m3/day) and 74.96 m3/day surplus will be generated which will be discharged to the drain.

9. **Power requirement**: The daily power requirement for the proposed Private Developer Project is preliminarily assessed as 1482 KW (Solar- 78.5 KW & TPCODL- 1403.5 KW) source from TPCODL of Odisha State Electricity Board. In order to meet emergency power requirements during the grid failure, there is provision of 2 nos. of DG set having 500 KVA (2 Nos.) capacities for power back up in the Residential Housing Project.

For energy conservation, there will be 123 nos. of Solar Lighting poles (@72 Watt) has been proposed for Street & common area solar lighting, so

Energy conservation by using Solar Street Lighting = 123x72 = 8856 watt = 8.8 KW

Energy conservation by using Solar lighting for common area = 69.7 KW

Total Energy Conservation = (69.7+8.8) KW = 78.5 KW

Total Energy saving = 78.5/1482 = 0.052 x 100 = 5.2 %.

10. **Rain Water Harvesting**: Rain Water will be harvested and recharge through 32 recharge pits from the plot area.
11. **Parking Requirement**: Total parking area provided is 22308.36 m^2 Sq.mt./636ECS and basement parking area and visitors open parking area has been provided.
12. **Fire fighting Installations**: Fire fighting system will be installed as per recommendation of the Fire fighting Officer, Odisha and as per the guideline of NBC (part-4).
13. **Green Belt Development**: Out of the total area, green belt will be developed over an area of 2641.18 sq.m (24.16 % of the plot area).
14. **Solid Waste Management**: From the proposed housing project solid waste in form of food waste from kitchen and miscellaneous waste will be generated @ 0.45 kg/person/day, which will be about 684 kg/day. The waste generated from floating population in residents will be @ 0.15 kg/day, which will be 22.8 kg/day. Total amount of solid waste generated of the project will be 331 kg/day. The generated solid waste from the residential areas will be segregated as biodegradable and non-biodegradable. This will be collected in separate colored bins. Proper waste management practices will be adopted during the collection, storage and disposal of the generated solid waste and construction and demolition waste. which will be disposed through BMC.
15. The total population of project after proposed will be 625 persons.
16. The estimated project cost is ` 95 Crores and Environment Management Cost is ` 204 lakhs.

17. The project proponent along with the consultant **M/s Centre for Envotech & Management Consultancy Pvt. Ltd. Bhubaneswar,** made a detailed presentation on the proposal.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Centre for Envotech & Management Consultancy Pvt. Ltd. Bhubaneswar,** the SEAC decided to take decision on the proposal after receipt of the following information / documents from the proponent followed by visit of sub-committee of SEAC to the proposed site.

i. As ROR document submitted by PP, part of the land is “Sarad” & not “Gharabari”. Therefore, the PP needs to submit the land document with conversation to “Gharbari” from appropriate Revenue authority before start of construction of the project.

ii. The source of fresh water is stated to be Ground water. Since pipe line water supply / surface water supply is available nearby, drawl of ground water cannot be allowed. However, one” bore well” may be allowed to meet emergency need. This needs to be confirmed by PP.

iii. To submit the distance of public drain / sewer line from the boundary of the project for connectivity of internal drain & the ROW of the said land in favour of PP including permission of the drain / sewer line authority to take the additional load of excess treated waste water and discharge of excess storm / run off water.

iv. Drain network with dimension for both waste water (untreated / treated) & surface run off / storm water in the layout map be submitted along with the quantity of excess storm / run off water to be discharged to drain / sewer line with calculation be submitted.

v. Quantity & percentage of drain OH / storm water to be discharged vis-s-vis total said water.

vi. Discharge of treated waste water to drain is stated to be 77 KLD (during monsoon) which is very high. Therefore, plantation augmentation and provision of vehicle washing be worked out to reduce it & be submitted.

vii. Maximum hourly rain fall in 24 hrs has been taken 20mm / hr. Maximum hourly rain fall in 24 hrs be taken from past 30 years date (logical climate date) and accordingly, rain water harvesting pits be designed & calculated.

No of RWHP has been calculated to be 32 which looks high. So, the calculation with maximum rain fall date as indicated above be re-calculated and accordingly, re-submitted.

viii. Solar power consumption with detailed plan & calculation be submitted including the open space against the generation through the same source along with percentage of the total power demand be submitted.

ix. Parking for two wheelers (including bicycles) be provisioned in terms of ECS & separate space in the layout for all categories of users be work out and submitted.

x. NH is stated to be at a distance of 0.3 KM / 1.4 Km. Fresh traffic study at intersecting points with public road / NH be undertaken through a domain experts and report be submitted along with decongestion measures (if required) based on study findings, taking traffic road of 10 years ahead into consideration.

xi. Separate gates for entry & exit with pedestrian pathways of suitable dimension be made & shown in the layout map & submitted.

xii. Fire Safety Clearance from appropriate authority need to be submitted.

xiii. Details of construction activity carried out if any.

xiv. The Letter of refusal of surface water supply by PHED, BMC, or WATCO to the Project may be submitted to avail Groundwater, With the Number of Borewells, dia, location, yield & requirement be furnished.

xv. The layout may be re-visited to accommodate the greenbelt in the outer (entire) periphery of the project without Breaking the continuity from the Entry gate to the Exit gate.

xvi. The open/covered drain & road of adequate width may be provided after providing the greenbelt with 03 rows of staggard design tree plantation in a hierarchical method.

xvii. The provision of a Water Treatment plant for use when required, Waste Water Treatment plant (To reduce pressure on STP), STP, and OIL water separator pit before disposal of the Storm Water may be shown in layout plan.

xviii. Status of permission from BMC/WATCO for disposal of Treated Waste Water in covered Drain and treated sewer in Sewerage Line available in the vicinity.

xix. The Per head - Per day (with the likely maximum number of inhabitants) Water supply norms Conceived/Considered for the Project may be mentioned & accordingly adequate no. of overhead Tank for fresh water and number of wastewater Treated over Head tank connected to dual plumbing system may be mentioned.

xx. The recommendation letter may be obtained from State Govt. Fire Safety Dept on submission of layout plan & structural design and their Field Visit. This Fire Safety Recommendation letter along with the commitment to Comply the condition will facilitate issue of Fire Safety Certificate, Completion Certificate & Occupancy Certificate for the Project.

ITEM NO. 05

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR EXPANSION IN PRODUCTION OF LOW ASH METALLURGICAL COKE OF 60,000 TON PER ANNUM CAPACITY TO 1, 08,000 TON PER ANNUM BY INSTALLATION OF 2 NOS. NEW COKE OVEN BATTERY (2X24,000 TPA) AT BARAMANA, PURUNABAULAMALA, POST: JENAPUR, IN THE DISTRICT OF JAJPUR, ODISHA WITHIN THE EXISTING PREMISES OF M/S NILACHAL CARBO METALICKS PVT. LTD OF SRI BIBHUDATTA PANDA – TOR

1. The proposal was considered by the Committee to determine the "Terms of Reference (ToR)" for undertaking detailed EIA study for the purpose of obtaining Environmental Clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter.
2. M/s Nilachal Carbo Metalicks Pvt. Ltd has applied for expansion in production of Low Ash Metallurgical coke of 60,000 Ton per annum capacity to 1, 08,000 Ton per annum by installation of 2 nos. new Coke Oven Battery (2 x 24,000 TPA) at Baramana, Purunabaulamala, Post - Jenapur, in the district of Jajpur, Odisha within the existing premises.
3. The project falls under Category 'B' of item 4(b) "Coke oven Plants" but it will be installed within the complex of existing plant hence, it fall under Category 'B' of item 3(a) "Metallurgical Industries (ferrous & non-ferrous)" of the Schedule to the EIA Notification 2006 and amendments thereof.

4. Nilachal Carbo Metalicks Pvt. Ltd., is a manufacturer company based on the National Industrial Classification (NIC) code of 23101 and it is involved in the business activities related to this industry code such as Coke manufacturing through coke oven, Manufacturing of coke products, Manufacturing of semi coke products, Products of coke through coke oven, Products of semi-coke, manufacturing through coke oven.
5. This proposal is enhanced in production capacity from 60,000 TPA capacity to 1,08,000 TPA by installation of 2 nos. new Coke Oven Battery (COBP#2) (2x24,000 TPA) within the existing premises.
6. **Location and Connectivity** - The Mine spreads over an area of 10.35 Acres is part of Survey of India Topo sheet bearing No. F45U1, F45U2, F45T13 & F45T14 and is bounded by the latitudes from 20°47'34.54"N to 20°47'33.42"N 86° 2'46.15"E to 86° 2'45.78"E. The ML area is approachable from NH – 5 at 2.5km and NH – 200 at 3 km. Nearest town is Chandikhol at 3.1 Km and 24.4km from district Jajpur. Madhopur New Garh PH (Railway station) at 2.89 km and Jenapur PH (Railway station) at 6.89 km are the nearest railway stations from the lease area. Nearest Airport is Biju Patnaik International Airport, Bhubaneswar at 75.3 km. Nearest Reserve forest is Nischinta R.F at 0.81 KM and nearest nala is Baramana Nala at 0.83km. Nearest river is Kuaria Nadi at 3.87km. There is no national park/wild life sanctuary/biosphere reserve/ tiger reserve/ elephant reserve in the core and buffer zone (10 km radius of the M.L area).
7. Consent to Establish from SPCB, Odisha for the production capacity of 60000 TPA of Low ash metallurgical Coke vide Letter no. 21535/INDII- NOC-2488 On Dated 20.01.2003 (Valid upto 5 years) and for Installation of one additional battery having 32 ovens without increasing the production capacity of metallurgical Coke of 5000 TPM vide Letter no. 3023/638 on dated 24.09.2012.
8. Consent to Operate from SPCB, Odisha for the production capacity of 60000 TPA vide the letter No - 616/KNG/IND/96 on dated 16.03.2021 consent order no. 08/RO-SPCBKNG/WPC/APC valid upto 31.03.2022 13359/IND-I-CON-6573 dated 10.12.2019 and is valid up to 31.03.2023.
9. Permission by Central Ground Water Authority, Govt. of India for withdrawal of 9KLD Ground water Vide NOC letter No. CGWA/NOC/IND/ORIG/2021/11527 Dt. 23.03.2021 to 22.03.2024.
10. Raw materials used are Coal and LDO. Coal to be used is 386 T/Day (Existing – 220.8 T/Day and Proposed - 165.6 T/Day) and will be sourced from Mahanadi Coal Field and LDL to be used is 2500 L/month (Existing – 1250 L/month and Proposed - 1250 L/month) and will be purchased from local market.
11. There will be no waste generation from the process as the coal and coke dust is being reutilized. Oil is used as lubricants for machineries. Water used for quenching will be reused. Used oil will be generated and will be disposed to authorize re processor (M/S Omm Ovi Carbon Resources Pvt. Ltd.)

12. **Water Requirement -** Total water requirement will be 9 KLD. (Existing-5 KLD+ Proposed-4 KLD). Around 9 KLD of water will be met out from ground water; from Central Ground Water Authority (CGWA).
13. **Power Requirement -** 900 KW (Existing-540 KW+ Proposed-360KW) 300 KVA in 11 KV supply system shall be met from OSEB on chargeable basis Vide Letter No. FC/CO/555/ 10814 (5) dt. 27.08.20214. Also for standby operation 2 Nos of 125 KVA DG- Sets installed For Existing & Operation.
14. **Green Belt**- A total of 3.415 Ha area will be covered under plantation in plant. The project has already developed three tier green belt of 2 Acres and will develop 1.415 Acres of greenbelt for the expansion project. 4149 no's of sapling shall be planted at for proposed expansion.
15. **Employment potential** - The total requirement of manpower including management staff and workmen for complete operations and maintenance of the plant will be about 85(for existing (48nos.) and expansion (37nos.)).
16. **Project Cost** - The total project cost for the project is estimated to be Rs. 23.27 Crore (Existing: Rs. 12.19 Crore + Proposed: Rs. 11.08 Crore). Capital Cost: Total capital cost = Rs. 96.03 Lakh (Existing: 57.45 Lakh +Proposed: Rs. 38.58 Lakh).Total Recurring cost per annum: Rs. 18.63 Lakh (Existing: Rs. 12.16 Lakh + Rs. 6.46 Lakh).
17. The Environment Consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar, Odisha** along with the proponent made a detailed presentation on the proposal before the Committee.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar**, the SEAC prescribed the following specific ToRs in addition to standard ToRs as per **Annexure – A** for conducting detailed EIA study.

i. "Kisam" of the land (for existing plant & proposed expansion) be submitted since the same must be for "Industrial use".

ii. A comparative statement is a tabular form indicating all salient features like use of natural resources, environmental parameters & physical features for existing plant as well as for expansion proposed be submitted showing the physical features for both in the layout map to scale along with EIA / EMP study.

iii. Compliance to EC (if taken) duly authenticated by Regional Office, MoEF & CC, Govt of India & CTE / CTO from State Pollution Control Board for the existing plant be submitted with EIA / EMP study.

iv. Provision of solar power, generation & consumption (with plan and detail calculation) of the existing plant & for the proposed expansion be submitted.

v. Source of coking cold for the existing plant with relevant documentary evidence be submitted and for expansion be indicated.

vi. 9 nos of plant stated to be transplanted be shown in the layout map (present location and transplanted location).

vii. Material balance, Energy balance & water balance for existing and proposed expansion be submitted.

viii. Details of solid waste generation & recycling / reuse of the same be submitted.

ix. Details of STP/ETP/ settling tank with design & Capacity and of corresponding sludge be submitted (for existing available & proposed expansion).

x. Emission management (both stack emission & fugitive dust emission) for existing & proposed expansion be submitted.

xi. Inversion / Dispersion modeling study be undertaken by domain export & based on the study findings, mitigation measures be proposed.

xii. Traffic study be undertaken by domain export at the plant vehicle gate and at the intersecting point of plant road from material / vehicle gate with public road and based on the findings of the study, mitigation measures/ decongestion plan be submitted.

xiii. Carbon Balance per tonne of coke with Carbon Neutrality (net zero) be worked out & details be submitted.

xiv. Warehousing (storage) & Handling of coal & coke i.e. coal and coke Handling plant details with design be submitted.

xv. Domestic water management for the employees as well as floating population with appropriate STP design & capacity be submitted.

xvi. Rain water harvesting management, considering maximum shortly rain fall in 24hrs in last 30 years (30 years logical climate data) be submitted.

xvii. Green belt details (for existing & proposed expansion) interms of area, no of species & kind of species be submitted vis-a-vis the prescribed norms.

xviii. Gas emitted from the Coke oven and their management with mitigation measures and utilization. Also, effluent management from organics generation if any. The information may be provided for existing plant and envisaged from expansion.

ITEM NO. 06

PROPOSAL FOR EXTENSION OF VALIDITY OF ENVIRONMENTAL CLEARANCE FOR EXPANSION OF LAXMIPUR GRAPHITE BENEFICATION PLANT FROM 950 TPA TO 12,000 TPA AT VILLAGE - KATRAKANA IN THE DISTRICT OF KORAPUT OF M/S. PRADHAN INDUSTRIES OF SRI SUNDEEP PRADHAN – EXTENSION OF EC

1. This proposal is for Extension of validity of Environmental Clearance for expansion of Laxmipur Graphite Benefication Plant from 950 TPA to 12,000 TPA at village: Katrakana in the district of Koraput of M/s. Pradhan Industries of Sri Sundeep Pradhan.
2. The State Environment Impact Assessment Authority (SEIAA), MoEF&CC, Govt. of India vide letter dated 21.01.2015 have granted EC to the project for a period of 5 years Subsequently

the MoEF&CC, Govt. of India vide notification dated 29.04.2015 have substituted the period of 5 years as mentioned in para 9 of the EIA Notification, 2006 to 7 years and hence the validity of the environment clearance so granted to the Lakshmipur Graphite Beneficiation plant has been extended till 20.01.2022.

3. The OSPCB, Govt. of Odisha have accorded CTO for production of 2880 TPA of graphite concentrate.

4. There is no change in production capacity, technology, product mix or area of the project is requested by the PP. The PP requests only extension of the time period for achieving the approved EC capacity.

5. During the period 2011 till 2015, no graphite mining leases were operational in India and hence the said Lakshmipur Graphite Beneficiation plant had to stop operations due to want of raw material. Condition No. 1 of the Environment Clearance granted to the Laxmipur Graphite Beneficiation Plant stipulated that the said project can only source semi-processed graphite from the Bandhamandi Graphite Mining Lease of the PP and that the said environment clearance granted to the project was subject to environment clearance granted to the Bandhamandi Graphite Mining Lease. The Bandhamandi Graphite Mines was non-operational for 9 years for renewal of lease deed post submission of EC, FC, etc. Thus, the PP could not have started plant construction activities till the said Bandhamandi graphite mining lease was operationalised.

6. As the production of semi-processed graphite has been sub-optimal at the Bandhamandi Graphite Mining Lease for reasons mentioned above, hence the expansion of the Laxmipur Graphite Beneficiation Plant has not been completed at the approved capacity. This has led to sub-optimal production at the Laxmipur Graphite Beneficiation plant. The production information at the plant is as follows:

Financial Year	**Semi-processed graphite purchased from the Bandhamandi Graphite Mining Lease (in TPA)**	**Processed graphite production at the Laxmipur plant (in TPA)**
2018-19	669	436
2019-20	795	439
2020-21	552	722

7. Inspite of the above mentioned challenges the Project Proponent has continued with his obligations to the people of the Project area and has spent an amount of Rs. 12,64,000 in compliance with its public hearing commitments. The Project proponent has completed plantation over 33% of the total project area.

8. **Location and Connectivity** - The Laxmipur Graphite Beneficiation Plant is located over an area of 6.336 Ha. in Village: Katrakana, Tahasil: Lakshmipur in the District of Koraput, Odisha. The said plant lies within the Latitudes 18^{o} 59' 42.742'' N to 18 ^{o} 59' 50.153" N and Longitudes 83^{o} 07' 21.163" E to 83^{o} 07' 37.105" E and is a part of Survey of India toposheet No. 65 N/1.The plant is well connected by State Highway (SH-4), connecting Rayagada and Koraput. Nearest railway station is Lakshmipur, at a distance of 1.75 Km. Nearest airport and sea port is Visakhapatnam, about 255 km from the project site. Nearest town is Lakshmipur,

at a distance of 1.7 km from project site. There is no forest land in the project area. The main plant area is bounded by wall whereas the eastern side of the project area has been densely vegetated by plantation in compliance of the conditions of the environment clearance granted on 21.01.2015 covering 33% of the total project area.

9. **Topography:** Topography of the project site is moderately undulating and the project area has steep topography towards the eastern side. The average elevation of the site is 900 m AMSL.
10. There is no sensitive ecological habitat like National Parks, Sanctuaries, Biosphere Reserves, Wildlife corridors, Tiger/Elephant reserves within 10 km radius of ML area. No Schedule I species are found within the study area.
11. **Water Requirement** - The PP has obtained surface water drawal permission of 81 KLD from the Executive Engineer, Upper Kolab Project vide execution of a surface water drawal agreement dated 02.01.2019 for drawal of water from the Gadabandha Nala.
12. **Power Requirement** - The project envisages a total electricity requirement of 700 KVA to be drawn from the SOUTHCO with a DG of 250 KVA as backup. As the present installed capacity is lesser as compared to the approved capacity hence electricity agreement for drawal of 139 KVA has been executed with SOUTHCO for plant operations and the same shall be increased post increase of the plant installed capacity.
13. **Employment potential** - The total requirement of manpower is 44nos.
14. The Environment Consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar, Odisha** along with the proponent made a detailed presentation on the proposal before the Committee.
15. The proponent intimated the Committee that presently the said project is mandated to source graphite feed from one Bandhamandi graphite mining lease of the PP. As the Bandhamandi Graphite mine is presently not able to provide graphite feed as per the proposed capacity of the Lakshmipur plant, hence, they have requested the Committee to consider allowing them to procure graphite feed from other graphite mining leases which are operating with valid environment clearance from the MoEF&CC, Govt, of India & to allow import of graphite feed from other countries in addition to the Bandhamandi graphite mine. They have further intimated that Graphite is a necessary ingredient in all major manufacturing units and presently our country procures more than 90% of its requirement from other countries.

After detailed discussion and considering the request of the proponent, the SEAC recommended for extension of validity period of Environmental Clearance Laxmipur Graphite Benefication Plant at village: Katrakana in the district of Koraput of M/s. Pradhan Industries for expansion of production of graphite from 950 TPA to 12,000 TPA for another 3 years i.e. upto 20.01.2025 with following condition:

a) The proponent shall source semi-processed graphite from the Bandhamandi Graphite Mining Lease and other graphite mining leases which are operating with valid environment clearance as well as import of graphite feed from other countries for processing at Laxmipur Graphite

Beneficiation Plant to achieve the approved Beneficiation capacity and accordingly, condition no. 1 of Environmental Clearance granted may be modified.

Approved

17.01.2022

Chairman, SEAC

(B. P. SINGH)

Secretary, SEAC

ANNEXURE-A

STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR COKE OVEN PLANTS PROJECTS AND INFORMATION TO BE INCLUDED IN EIA/ EMP REPORT

A. STANDARD TERMS OF REFERENCE

1) **Executive Summary**

2) **Introduction**

   i. Details of the EIA Consultant including NABET accreditation

   ii. Information about the project proponent

   iii. Importance and benefits of the project

3) **Project Description**

   i. Cost of project and time of completion.

   ii. Products with capacities for the proposed project.

   iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.

   iv. List of raw materials required and their source along with mode of transportation.

   v. Other chemicals and materials required with quantities and storage capacities

   vi. Details of Emission, effluents, hazardous waste generation and their management.

   vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)

   viii. Process description along with major equipments and machineries, process flow sheet (quantative) from raw material to products to be provided

   ix. Hazard identification and details of proposed safety systems.

   x. Expansion/modernization proposals:

      a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing Iexisting operation of the project from SPCB shall be attached with the EIA-EMP report.

      b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4) **Site Details**

i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification

for selecting the site, whether other sites were considered.

ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)

iii. Details w.r.t. option analysis for selection of site

iv. Co-ordinates (lat-long) of all four corners of the site.

v. Google map-Earth downloaded of the project site.

vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.

vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.

viii. Landuse break-up of total land of the project site (identified and acquired), government/ private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)

ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area

x. Geological features and Geo-hydrological status of the study area shall be included.

xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)

xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.

xiii. R&R details in respect of land in line with state Government policy

5) **Forest and wildlife related issues (if applicable):**

i. Permission and approval for the use of forest land (forestry clearance), if any, and

recommendations of the State Forest Department. (if applicable)

ii. Landuse map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (in case of projects involving forest land more than 40 ha)

iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.

iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-a-vis the

project location and the recommendations or comments of the Chief Wildlife Warden-thereon

v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area

vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

6) **Environmental Status**

i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.

ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.

iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with - min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.

iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.

v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.

vi. Ground water monitoring at minimum at 8 locations shall be included.

vii. Noise levels monitoring at 8 locations within the study area.

viii. Soil Characteristic as per CPCB guidelines.

ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.

x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule- I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.

xi. Socio-economic status of the study area.

7) **Impact and Environment Management Plan**

i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.

ii Water Quality modelling - in case of discharge in water body

ii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor- cum-rall transport shall be examined.

iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.

v. Details of stack emission and action plan for control of emissions to meet standards.

vi. Measures for fugitive emission control

vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.

viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.

viii. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.

x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.

xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.

xii. Action plan for post-project environmental monitoring shall be submitted.

xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8) **Occupational health**

i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers

ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.

iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,

iv. Annual report of heath status of workers with special reference to Occupational Health and Safety.

9) **Corporate Environment Policy**

i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.

ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.

iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.

iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

10) **Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.**

11) **Enterprise Social Commitment (ESC)**

i. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.

12) **Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.**

13) **A tabular chart with index for point wise compliance of above TOR.**

B. SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR COKE OVEN PLANTS

1. Justification for selecting recovery/non-recovery (beehive) type batteries with the proposed unit size.

2. Details of proposed layout clearly demarcating various facilities such as coal storages, coke making, by-product recovery area,etc within the plant.

3. Details of coke oven plant (recovery/non-recovery type) including coal handling, coke oven battery operations, coke handling and preparation.