

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL
COMMITTEE, ODISHA HELD ON 20TH SEPTEMBER 2024**

The SEAC met on 20th September, 2024 at 10:30 AM in the Conference Hall of Odisha State Pollution Control Board, Bhubaneswar under Chairmanship of Sri Shashi Paul. The following members were present in the meeting.

- | | | |
|------------------------------|---|-----------------------|
| 1. Sri Shashi 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. Shri Jayant Kumar Das | - | Member (through VC) |
| 10. Dr. Ashok Kumar Sahu | - | Member (through VC) |
| 11. Dr. K. C. S Panigrahi | - | Member (through VC) |

Draft proceedings of the meeting were finalized by the members through e-mail and final proceedings 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 FOR ENVIRONMENTAL CLEARANCE OF M/S TRIMETRO GARMENTS INDIA PVT. LTD FOR INDUSTRIAL SHED OF EPIC APPAREL MANUFACTURING INDUSTRY WITH TOTAL BUILT- UP AREA: 81902 SQM OVER PLOT AREA- 1,59,972.2 SQ.MT. / 39.53 AC./ 15.99 HA. AT VILLAGE - KALIBATI, DISTRICT - KHORDHA, STATE – ODISHA OF SMT. ANU ARORA - EC

1. This proposal is for Environmental Clearance of M/s Trimetro Garments India Pvt. Ltd for Industrial Shed of EPIC Apparel Manufacturing Industry Total Built-up area: 20.23 Acres (8.19 ha) at Village - Kalibati, district - Khordha, Block – Khordha of Smt. Anu Arora.
2. **Category:** This project falls under Category "B", Project or Activity 8(a) - Building and construction Projects as per EIA Notification dated 14th Sept, 2006 as its amendments.
3. **Location and connectivity:** The geo coordinates of project site area are Latitude: 20°2'53.43"N to 20°3'10.60"N and Longitude: 85°32'10.53"E to 85°32'29.47"E. The project area can be traced in Survey Map of India in Topo-Sheet no. F45T12. The project site is situated about 20km areal distance in the southwest direction of Khordha town and adjacent to Khordha Chandpur state highway. Proposed facility building shed for a major textile trading house over Revenue Khata no. – 2 282 and IDCO Pot no. – Plot no. 1 & 2 Dist - Khordha at Village - Kalibati, District- Khordha, Block- Khordha State- Odisha. Nearest Highway & Road is NH16 is at 0.12 km, S. Nearest Railway Station is Tapang Railway Station – 4.04 km, E. Nearest Airport is Biju Patnaik International Airport is at 35.94 km, NE. Nearby Residential area is Lahanga – 0.80 km, NE. Nearest Water Bodies are: Mandakini – 2.57 km, S and Rajua River – 9.54 km, E.
4. The site is coming under Khordha, Municipal Corporation / Municipality/ NAC.

5. The total plot area is 1,59,972.2 sq.mt. / 39.53 Ac./ 15.99 Ha. with total built-up area 81902 sq.mt.

6. Project Area Statement:

S. no.	Description	Total Area (m ²)
1	Plot Area	1,59,972.2 m ² or 39.530 Ac
2	Proposed Ground Coverage	83,137.55 sqm (51.97 % of plot)
3	Green belt/Plantation Area	33,949 sqm (20% of plot)
4	Internal Road & Paved Area	27,921 sqm (17.45 % of plot)
5	Other services	16,925.06 sqm (10.58 % of plot)
6	Total Built Up Area	81,902 sqm
7	F.A.R	Proposed: 0.41 (permissible: 5.00)
8	Height of Sheds	11.35m
9	Number of Sheds	6
10	No. of Floors	GF + Mezzanine

Parking Area Statement:

Detail Data	Required/ Allowed	Provided (Sqmts)
Parking Area (30% of BUA)		
Parking Area (P1)		4,775
Parking Area (P2)		1,631
Parking Area (P3)		1,356
Parking Area (P4)		4,157
Parking Area (P5)		536
Parking Area (P6)		2,304
Parking Area (P7)		11,308
Total (Parking Area)	19,954.56 SqMts	26,065

Detailed Area Statement:

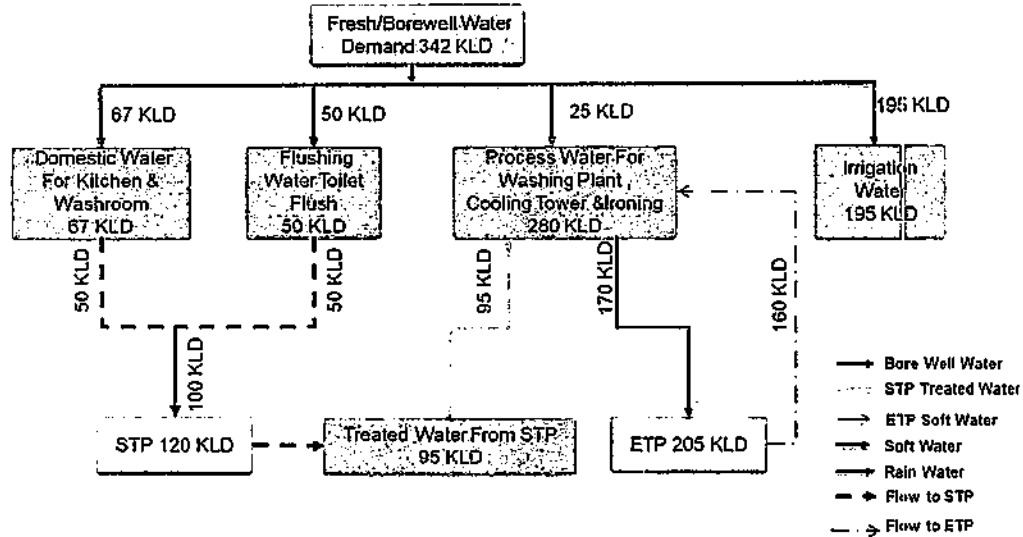
Sl. No.	Description	Acres	SQM	SQFT	
1	Area as per Document	39.53	1,59,971.98	17,21,938	
2	Area as per Survey	40.59	1,64,263.80	17,68,136	
Sl. No.	QT Y	Description	Width (Mts)	Length (Mts)	Area (SQM)
1	1	Pilot Unit	41	106	4,358
		Pilot Unit -First Floor			4,358
		Pilot Unit -Toilet Block ground Floor			482
2	1	Training Center- Ground Floor	57	36	2,018
		Training Center-First Floor			2,158
		Training Center -Second Floor			2,158
		Training Center- Terrace Floor			200
3	1	Corporate Block-Ground Floor	60	26	1,419
		Corporate Block-First Floor			1,633
		Corporate Block-Second Floor			1,633
		Corporate Block-terrace Floor			190
4	4	Apparel Manufacturing building 1	41	176	29,192
		Apparel Manufacturing building 1 -			1,648

		Mezzanine Floor			
		Apparel Manufacturing building Toilet Block & Compressor Room			2,104
		Apparel Manufacturing building 1 -Toilet Block 1& 2			1,876
5	2	Security -1	5	16	188
		Security -1		122	122
6	1	Drivers Toilet	14	5	70
7	1	Medical Centre & Day Care -Ground Floor	43	48	978
		Medical Centre & Day Care -First Floor			978
		Medical Centre & Day Care -Second Floor			978
		Medical Centre & Day Care -Terrace Floor			30
8	1	Utility - Basement Floor	67	21	685
		Utility - First Floor			1,138
		Utility - Second Floor			1,138
		Utility - Terrace Floor			66
9	1	Canteen-Ground Floor	71	55	2,709
		Canteen-Ground Floor			2,837
		Canteen-Ground Floor			2,837
		Canteen-Ground Floor			198
10	1	Central Warehouse	64	80	5,600
11	1	Waste Storage	21	18	378
12	1	Washing Plant	39	92	3,570
13	1	Boiler	12	48	558
14	1	Effluent treatment Plant (ETP)	36	44	1,125
15	1	Sewage Treatment Plant (STP)	12	15	180
16	1	HSD Yard	12	9	113
		Grand Total (BUA 1+2)			81,902

7. **Water requirement:** During constructional phase water requirement is 10 KLD and will be sourced from Authorized private tankers. During operational phase – Fresh water requirement is 342 KLD and will be source from ground water. Application for same has been made vide application - CGWA NOC No: CGWA/NOC/IND/ORIG/2024/20188 Dated -19/04/2024 to CGWA.
8. Total Water requirement – 342 KLD (fresh water 67 KLD + Flushing 50 KLD + Washing, Plantation, Cooling/discharge etc. – 25 KLD, Irrigation Water-195 KLD).
9. **Wastewater treatment:** Total Wastewater Generation - 270 KLD. Wastewater treated in a STP having capacity - 100 KLD (MBBR Technology). Treated Water recovered – 95 KLD. Treated Wastewater will be recycled/re-used (Process water for Washing Plant, Cooling Tower & Ironing - 95 KLD).
10. During rainy season the total water requirement i.e. 342 KLD will be from rainwater harvested will be used for overall plant uses.
11. The Project will acquire for zero liquid Discharge (ZLD).

Water Balance Diagram

Water Balance Diagram For Non Rainy Days As Per Green Building



12. **Rainwater harvesting details:** Rain Water will be harvested and diverted to 2 ponds of capacities 24050cum and 2250cum respectively.

Surface Rainwater - Total volume of infiltration: 480.00 Cu. Mtr.

13. **Power Requirement:** Total Power Requirement is 5.27 MW. The power shall be sourced from TPCODL (TP Central Odisha Distribution Limited). Stand by Power backup is by DG Set: 0.415 kV, 3 No. 1500 kVA & 1 No. 100 kVA DG sets in Phase 1 and 2 No. 1500 kVA DG. Total Solar Power/Lighting is 5MW (90% of electricity consumption) to be generated.
14. **Parking Requirement:** Total parking area provided is 26065 Sq.mt. which is 30% of Built-up area.
15. **Firefighting Installations:** Construction of the warehousing buildings has been done as per the provisions of National Building Code 2016. The fire-fighting system is proposed to be designed considering the following codes:

Manuals and guidelines:

- a) National Building Code (NBC) of India 2016; NBC -Part-IV.
 - b) Latest relevant National Fire Protection Association (NFPA) Codes, USA,
 - c) particularly NFPA – 13, 14, 20 & 22.
 - d) Industrial Risk Insurers (IRI) Guidelines.
 - e) As per requirement of fire officer/local fire approving authorities; and
 - f) As per Indian Standard Code for Fire Protection (IS Codes)
 - g) Rules of Insurance Company & TAC Manual (for reference and guideline).
16. **Solid waste generation:** During construction Phase - 80-90 kg/day solid wastes (peak) will be generated, which will be disposed through local agency as per C & D waste Rules 2016.
17. **During the operation phase,** waste will comprise domestic waste. The solid waste generated from the project shall be mainly MSW (Municipal solid waste). The Biodegradable waste will be 248.04 kg/day and Non-Biodegradable Waste: 165.36 kg/day. STP Sludge: 10 KLD STP Sludge will be generated. Collected and stored as per

Solid Waste Management Rules 2016. The biodegradable organic wastes will be treated inside the premises by OWC (Organic Waste Converter) having capacity of 130 Kg/day. Recyclable and non-recyclable wastes will be disposed through Govt. approved agency.

18. **Greenbelt:** Green belt will be developed over an area of 33949 sqm which is 20 % of the total plot area. Total 5980 no. of plants to be planted and 2x3 m spacing between plants in 3 tier plantations.

19. **Project cost:** The estimated project cost is ₹415.59 Crores and cost for EMP is Rs.130 Lakhs during construction phase and Rs.5.5 Cr. during operation phase.

EMP Cost – Approx. Budget (During Construction)

S. No.	Description of EMP during Construction Phase	Approximate Cost (Rs in Lacs)	Recurring Cost (Rs in Lacs)
1	Water for Dust suppression	6.5	2
2	Storm Water Management (RWH)	20	-
3	Waste Water management (STP & ETP)	74	-
4	Solid Waste Management including OWC	15	1
5	Air, Noise, Soil, Water Monitoring	-	1.5
6	PPE for workers & Health Care	3.5	0.5
7	Green Belt Development	8	1
8	Others	3	0.5
Total		130	6.5

20. **Environment Consultant:** The Environment consultant M/s Visiontek Consultancy Services Bhubaneswar along with the proponent made a presentation on the proposal before the Committee on 26.07.2024.

21. The SEAC in its meeting held on dated 26-07-2024 decided to take decision on the proposal after receipt of the following from the proponent: The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
1.	Revisit total green belt area and submit revised greenbelt alongwith breakup (tree plantation area and Lawn area) with layout plan. The proponent needs to increase greenbelt (tree plantation) to minimum 20% of the total plot area as per norms.	Green belt area and revised greenbelt along with breakup (tree plantation area and Lawn area) with layout plan is attached as Annexure-1 . Green belt area – 32852SQM
2.	The ground coverage needs to be maximum 40% of the total plot area. The plant layout needs to be revised accordingly.	Ground coverage area is 30.6 % of the total plot area which is below 40% is attached as Annexure-1 .
3.	Actual capacity of rain water ponds/tanks, quantity of solid waste generation as different values are given in online submitted documents, Brief summary and Power Point Presentation.	The area of the pond is 6300 sq.m. and Volume 11855 cu.m. and pond to area 822sq.m and volume is 84 cu.m. is attached as Annexure-2 . Solid waste management details attached as Annexure-3 .
4.	There is a service road. Submit the width of the road and supporting	The width of the road and supporting documents for usage of that approach

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	documents for usage of that approach road for transportation.	road for transportation is attached as Annexure-4 .
5.	Details of total solar power generation with calculation. Total solar energy generated in project should be at least 5% of total power demand.	Total solar power generation is 71 % of total power demand, calculation is attached as Annexure-5 .
6.	Traffic study report vetted by institute of repute.	Traffic Study vetting ongoing is attached as Annexure-6
7.	Details of biodegradable wastes.	Biodegradable waste management details attached as Annexure-3 .
8.	Obtain approval from Water Resources department, Odisha along with NOC from CGWA for ground water withdrawal.	Application copy to Water Resources department, Odisha along with NOC from CGWA for ground water withdrawal is Attached-7 .
9.	Detailed break-up of water requirement, taking into consideration the total number of working shifts to be taken up in a day. Revise comprehensive water balance showing water used and reject in each step in the whole process, input and output water quality. Domestic water balance to be submitted separately.	Comprehensive water balance showing water used and reject in each step in the whole process, input and output water quality. Domestic water balance is attached as Annexure-8 .
10.	Increase the Parking area from 30% to 40% of total Built up area, as the project is a commercial unit.	Plant Layout of Parking area from 30% to 40% of total Built up area is attached as Annexure-1 .
11.	Mention the source of biomass used in the plant process with supporting docs (MOU) from private/govt. suppliers/Agencies.	Offers submitted to Finest Enterprises, Sri Teja Biofuels, Biofuels Junction Pvt. Ltd., Kalinga Bio Fuels & Shankar Agro Bio-Fuel Industry. MOUs shall be formed after grant of Consent. Attached as Annexure-9 .
12.	Describe the entire process of garment wash, machinery to be used in Project, raw materials (cloth and other materials) details, disposal method of waste generated from process. The project proponent also needs to submit proper justification for water demand in the process and submit accordingly.	Garment wash process is attached as Annexure-10 . Industrial Washing machine will be used. Raw materials- Cotton & Cotton stretch garment. Disposal is wastewater (effluent)
13.	BOD and COD content of effluent generated in the process.	BOD and COD content of effluent generated is attached as Annexure-11 .
14.	Internal drainage layout plan and provision for discharge of storm water to nearest IDCO drain. NOC/Permission from concerned	ZLD conditions will be maintained in the plant except in case of cyclonic/torrential rainfall. Internal drainage layout plan and provision for discharge of storm water to

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	authority to be obtained for discharge of storm water to nearest public drain even if the project assured for Zero Liquid Discharge (ZLD).	nearest IDCO drain is attached as Annexure-12 .
15.	Ventilation arrangement details as per the norms.	Ventilation arrangement details as per the norms is attached as Annexure-12 .
16.	SOP for sanitation of the employees and hygiene guidelines to be followed.	SOP for sanitation of the employees and hygiene guidelines is attached as Annexure-13 .
17.	Provision to be kept for indoor air quality Monitoring.	This project is getting certified under LEED platinum. The proposed plant is a Non-Polluting Tailoring Unit. <ol style="list-style-type: none"> 1. The finishing materials will be having low VOC content. 2. HVAC system designed to maintain human comfort conditions inside the factory environment. VOC and CO2 sensors will be modulating the fresh air dampers of the AHU. 3. We are using MERV 8 filters in AHU and it will be maintained with a schedule.
18.	Air pollution control measures.	Our boiler capacity is max 3 T /hr. Back filter with air to cloth ratio maintained @ 1:1 to avoid the pollution. DG capacity will conform to CPCB IV norms. We are considering sustainable transportation to reduce the vehicular emissions.

Considering the information furnished and the presentation made by the consultant, **M/s Visiontek Consultancy Services 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) EC recommended subject to submission of an undertaking or affidavit to SEIAA that no construction work has been undertaken till date on site and no dye/colour treatment of fabrics will be taken up by PP in the proposed unit.
- ii) The Proponent before implementation of the project shall convert the land to industrial use and shall take the ownership of the land if not already taken.
- iii) The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess ETP/STP treated water to the nearest drain without which the Proponent will not start construction work. Also, in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.
- iv) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.
- v) The proponent shall obtain permission from concerned Fire Safety Authority.

- vi) The proponent shall obtain permission for water supply.
- vii) The proponent shall abide by Traffic corridors layout as per Traffic Study Report.
- viii) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- ix) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- x) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
- xi) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.
- xii) Occupational health monitoring shall be taken up periodically.
- xiii) Ventilation arrangement shall be made as per the norms.
- xiv) PP to incorporate proper collection and sludge treatment and disposal system, for dry and wet cloths including cutpieces to avoid air and water contamination
- xv) Occupational health monitoring details to be taken up and recorded periodically
- xvi) Firefighting measures and control systems for safety to be implemented before operation

ITEM NO. 02

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S ODISHA KHADI AND VILLAGE INDUSTRIES BOARD FOR PROPOSED COMMERCIAL PROJECT "UNITY MALL" OVER TOTAL BUILT-UP AREA - 22079.46 M² LOCATED AT MOUZA - BHUBANESWAR SAHAR, UNIT NO - 22, BHIMPUR, BHUBANESWAR, DIST - KHORDHA OF SRI SANJAY KUMAR MISHRA - EC

1. This proposal is for Environmental Clearance for M/s Odisha Khadi and Village Industries Board for Proposed Commercial Project "Unity Mall" over a built-up- Area is 22079.46 m² at Mouza - Bhubaneswar Sahar, Unit No - 22, Bhimpur, Bhubaneswar, Dist – Khordha of Sri Sanjay Kumar Mishra.
2. **Category:** This is a Category – B project which falls under schedule 8(a) - Building and construction Projects as per the EIA Notification 2006 and amendments thereafter.
3. **Location and connectivity:** The proposed project is located at Plot No.- 407, 404/3223, 424, 423/3221, 423/3220, Khata No.- 707/431, Mouza - Bhubaneswar Sahar, Unit No-22, Bhimpur, Bhubaneswar, Dist - Khordha, Odisha, The project is bounded by geographical coordinates - Latitude: 20°15'13.55"N and Longitude: 85°48'24.37"E. Nearest airport is Biju Patnaik International Airport (approx 0.79 km, E); Nearest highway is NH-16 (1.96 Km in NW); Nearest river is Daya River(5.45 Km, SE); Nearest sanctuary is Chandaka - Dampara Wildlife Sanctuary (11.64 Km, NW) .
4. The site is coming under Bhubaneswar Development Authority (BDA).
5. Total Population is estimated to be 3008 persons (visitors - 2707nos. + staff - 301nos.)
6. The total plot area is 16,265.3 sq.mt. / 4.019 Ac./ 1.626 Ha. with total built-up area 22,079.46 sq.mt.

7. The project comprises of Main Dwelling Units of Main Building i.e. Commercial Building (116) and Multipurpose Building (18). Maximum no of floors is B+G+2.

8. Detail Area Statement for the project:

AREA STATEMENT				
PLOT AREA AS PER RECORD = 16265.30 SqMt. (A.4.01)				
PLOT AREA AS PER POSSESSION = 16264.15 SqMt.				
BLOCK- "A"				
Floor	Occupancy/Sub Occupancy	Built up Area SqMt.	Built up Area Towards FAR SqMt.	Carpet Area SqMt.
-01	Local (Retail) Shopping (Basement Floor)	6035.62		
	Common Area		820.48	
	Parking Area	4733.52		
00	Local (Retail) Shopping (Ground floor)	4438.50	4395.33	3999.23
01	Local (Retail) Shopping (First floor Plan)	4527.38	4527.38	4083.83
02	Apartment Building (Second floor Plan)	4464.21	4464.21	4083.83
	Total	19465.71	14207.40	12166.89
BLOCK- "B"				
00	Guest Houses (Ground floor)	877.01	877.01	829.06
01	Guest Houses (First floor Plan)	868.37	868.37	726.54
02	Guest Houses (Second floor Plan)	868.37	868.37	726.54
	Total	2613.75	2613.75	2282.14

Covered area: 889.80 SqMt.

Height of building Before Deduction/Addition: 12.0 Mt.

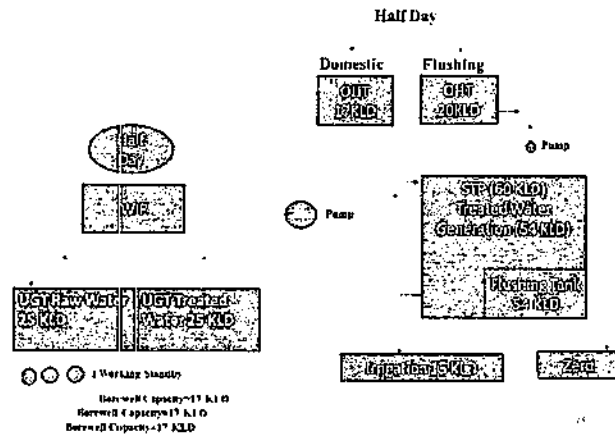
Height of building After Deduction/Addition: 12.0 Mt.

F.A.R =0.98

9. **Water requirement:** The total water requirement for the project will be 74 KLD out of which 35 KLD is freshwater requirement and 54 KLD is recycled/treated water. The wastewater generation will be 54 KLD which will be treated in STP having total capacity of 60 KLD. The STP treated water will be used for Flushing and Horticulture.

Water Requirement	74 KLD
Fresh Water Requirement	35 KLD
Source	Bhubaneswar Development Authority (BDA)
Waste Water Generation	54 KLD
STP Capacity	60 KLD

WATER BALANCE DIAGRAM



10. **Greenbelt details:** The green area proposed is 15 % of the Plot Area (i.e. 2439.79 Sq. Meter approximately). No. of tree plantation – 203nos.
11. **Power requirement:** Power requirement will be supplied by State Electricity Board. The connected load for the project will be approx. 33 KV which will be supplied by 3 transformers of capacity 1000 KVA for Common services each at 100% loading. 2 Nos. of DG sets of capacity 1250 kVA is proposed for the project. Solar Power Generation will be taken 20% of Power Generation i.e., 6.6 KVA.
12. **Parking details:** Parking shall be provided as per Bhubaneswar Development Authority Norms. Provision for parking (40%) – Off street and Basement parking: 145 Cars (113 Basement Parking, 27 Off Street Parking)
13. **Solid waste Management:** Total solid waste generation is 722.02 kg/day. Out of which, the bio- degradable waste will be composted in Organic Waste Converter in the project premises and the manure produced will be used for horticulture and green development (70% bio-degradable waste- 505.414 Kg; 30% non-biodegradable- 216.606 Kg). Recyclable wastes and DG used oil will be disposed to govt. or SPCB approved vendors. Third party will be engaged after the complete management of municipal wastes.
14. **Rainwater Harvesting details:** 2.0 Nos of RWH Pits are proposed at the project site for Rainwater collection.
15. **Project Cost & EMP cost:** Total Cost of the Proposed Project is 159.28 Crore, cost for EMP is 52.5 lakhs and CER cost is 3.19 crore.
16. **Environment Consultant:** The Environment consultant M/s Acro Design and Engineering, Ghaziabad along with the proponent made a presentation on the proposal before the Committee on 26.07.2024.
17. The SEAC in its meeting held on dated 26-07-2024 recommended the following:
 - A. The proponent may be asked to submit the following for further processing of EC application:
 - a) Project proponent shall increase the greenbelt and parking area up to 20% and 40 % respectively as per norms. A revised layout for the same shall be submitted.
 - b) Project proponent shall rectify the building height in accordance with recommendation from Airport authority.

- c) Corrections shall be made in Common Application form in reference to the type of project which is mentioned as residential and energy efficiency information.
- d) Project proponent shall submit the standards mandated for the given project and comply with the stipulated environmental norms.
- e) Layout of internal drainage plan connecting to the outside plant. NOC/Permission from concerned authority to be obtained for discharge of treated/storm water to nearest public drain even if the project assured for Zero Liquid Discharge (ZLD).
- f) The project proponent estimated population to be 3008. But the proposed water demand is high and needs correction as per actual demand. Revisit the water balance and sewerage generation. The PP shall explore PHED water supply in that area rather than going for ground water.
- g) Traffic study report vetted by reputed institute to be submitted.
- h) Parking should not be outside the project premises.
- i) Reportedly, 75 nos. of trees are present in the proposed project area. Hence the PP shall comply with the detailed process, technique, equipment to be used, plan of transplantation etc. to transplant those trees in the greenbelt area. Otherwise, PP shall explore to revise the layout without cutting the trees or revise the layout accordingly to avoid any tree cutting and maintaining greenbelt. **This is essential before grant of EC.**
- j) Justify how Zero Liquid Discharge (ZLD) will be attained.
- k) Note of energy efficient measures to be taken in the project.

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

- i) Environmental settings of the project site.
- ii) Verify if the site is a flood prone area.
- iii) Construction activity if any started at the site and extent of construction activity.
- iv) Road connectivity to the project site.
- v) Drainage network at the site along with plan of discharging excess treated sewage water and storm water to the nearest public drain.
- vi) Discharge point for discharge of treated water and distance of the discharge point from the project site.
- vii) Any other issues including local issues.

18. 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.	Project proponent shall increase the greenbelt and parking area up to 20% and 40 % respectively as per norms. A revised layout for the same shall be submitted.	Total plot area is 16264 sqmtr. Total Greenbelt required @20% will be around 3252 sqmtr. We are proposing 3663 sqmtr of open space for green belt Layout Plan showing 22.5% greenbelt is enclosed as Annexure1. Total built up area towards FAR is 15721.87 sqmtr. ODA norms for parking

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		are 40% of Total Built up area towards FAR i.e 6288.74 sqmtr As per the Calculations, Parking Aea for basement is 6056.55 sqmtr & Parking area on site is 551.05 sqmtr. Hence. Total Parking area provided is 6056.55 sqmtr + 551.05 sqmtr = 6607.6 sqmtr. Parking area Calculation and Layout is enclosed as Annexure 2 & Annexure 3.
2.	Project proponent shall rectify the building height in accordance with recommendation from Airport authority.	Permissible top elevation in mtrs, above AMSL is 43.92mtr. The proposed top elevation of building height is 43.814mtr from AMSL. Hence our building height is within the limit of Airport Authority of India recommendation. NOC issued by Airport Authority of India is enclosed at Annexure 4.
3.	Corrections shall be made in Common Application form in reference to the type of project which is mentioned as residential and energy efficiency information.	Proposed B+G+2 floors (Block-A main Building + Food Court) & G+2 floors Building (Block-B Multi Purpose Block) of unity Mall is coming under "Mercantile-cum-Residential building" as per NBC-2016.
4.	Project proponent shall submit the standards mandated for the given project and comply with the stipulated environmental norms.	The project falls under category "B" or activity 8 (a)- Building and Construction projects as per EIA Notification dated 14 th September 2006 as amended from time to time and local building bye laws including environmental norms has been complied during designing stage of the project.
5.	Layout of internal drainage plan connecting to the outside plant. NOC/Permission from concerned authority to be obtained for discharge of treated/storm water to nearest public drain even if the project assured for Zero Liquid Discharge (ZLD).	Copy of the internal drainage plan connecting to the outside plant is enclosed as Annexure 5. The discharge of water to nearest public drain is Zero. Thus, the Liquid Discharge into public drain will not be there. STP will be constructed inside the premises which will be used for flushing, horticulture, HVAC. Required NOC has been obtained from PHED vide letter No. 7605 dated 25.07.2024 and is enclosed as Annexure 6.
6.	The project proponent estimated population to be 3008. But the proposed water demand is high and needs correction as per actual demand. Revisit the water balance and sewerage generation. The PP shall explore PHED water supply in that area rather than going for ground water.	We are not withdrawing water from the Bore well and water from municipal supply shall be used during the operation phase of the project. Revised Water Balance is enclosed as Annexure 7.
7.	Traffic study report vetted by reputed institute to be submitted.	Vetted Traffic Study Report & Traffic Management Plan is enclosed as

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		Annexure 8.
8.	Parking should not be outside the project premises.	Parking will be strictly restricted inside the premises only.
9.	Reportedly, 75 nos. of trees are present in the proposed project area. Hence the PP shall comply with the detailed process, technique, equipment to be used, plan of transplantation etc. to transplant those trees in the greenbelt area. Otherwise, PP shall explore to revise the layout without cutting the trees or revise the layout accordingly to avoid any tree cutting and maintaining greenbelt. This is essential before grant of EC.	The Total Plot area is 6 Acre, out of which proposed construction activities of Unity Mall will be commencing over 4.01 Acre of land. During the site tress coming in periphery to boundary. During The site visit of SEAC members dated 16.08.2024, it was clarified & submitted that about 40 nos, trees are present at proposed construction area & 20 nos trees are in periphery of the boundary of proposed Unity mall which shall be retained as green belt. However, 20% greenbelt will be developed as per the norms. As per project is considered to achieve GRIHA 4star rating. Thus the required greenbelt is necessary & accordingly re-plantation will be made.
10.	Justify how Zero Liquid Discharge (ZLD) will be attained.	We are using water for flushing, gardening & housekeeping etc. No treated water shall be discharge into the municipal drain/given to nearby construction site. Entire treated water will be used within the project premises.
11.	Note of energy efficient measures to be taken in the project.	As required by norms, 5% of Solar energy will be utilized to meet the energy demand Provision of 100% LED fixtures, occupancy sensors will be placed in common areas to automatically adjust the lighting based on occupancy 30% of parking slots equipped to support EV charging. To effectively manage and optimize energy consumption, a Building management system (BMS) will be provided. All measures for achieving 4star rating under GRIHA is considered. Note of energy efficient measures is enclosed as Annexure 9.

19. The proposed site was visited by the sub-committee of SEAC on 16.08.2024. Following are the observations of the sub-committee:

- a) The site is located at Road side in Bhimpur. Members of Khadi Board were present along with their Technical Consultant. Two gates were present.
- b) Site conditions:
 - i) The site has roadside drain for storm water discharge.
 - ii) There are few small and old buildings at two places of the land which they need to demolish following procedure.

- iii) They are yet to take approval of Plan from BMC, thus could not show. However, layout plan was shown.
- iv) The site was found to have about 35-40 trees of mostly medium size. About 15-20 are in the periphery (close to boundary). At end of one side trees with encroachment was seen.
- v) There are trees at the backside that is outside the boundary areas.
- c) In view of above PP needs to explain/submit the following:
 - i) BMC/BDA approval copy for the provisional building plan with final layout plan showing the Fire corridor, internal drain, parking etc
 - ii) Permission from BMC for allowing treated water to the Existing drain if any (condition), however, they need to maintain ZLD.
 - iii) Demolition procedure as per BDA guideline to be followed
 - iv) It was observed that there were about 35-40 trees in the site, whereas it was informed 75 trees were there during the meeting/presentation. This needs to be substantiated by the PP with documents if any.
 - v) The trees which are close to boundary to be retained as a part of green belt.
 - vi) Transplantation of balance trees to be carried out close to the boundary to be a part of green belt. In this regard the PP needs to submit the details of Transplantation mechanism, agency and budget provision etc so that the trees are kept live.
 - vii) Video/Photo of Transplantation to be recorded for verification during compliances.
 - viii) Fire protection measures to be implemented.
- d) All other points asked during presentation to be complied along with statutory clearances

Considering the information furnished and the presentation made by the consultant, **M/s Acro Design and Engineering, Ghaziabad** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per **Annexure – B** in addition to the following specific conditions.

- i) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.
- ii) The proponent shall obtain BMC/BDA approval of building plan with final layout plan showing the Fire corridor, internal drain, parking etc
- iii) The proponent shall demolish old buildings do exists at the proposed site following demolition procedure as per BDA guideline.
- iv) The trees which are close to boundary to be retained as a part of green belt. Transplantation of balance trees to be carried out close to the boundary to be a part of green belt. Video/Photo of Transplantation to be recorded for verification during compliances.
- v) Greenbelt shall be developed in minimum 20% (excluding land scaping).
- vi) The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess STP treated water to the nearest

- drain without which the Proponent will not start construction work. Also, in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.
- vii) The proponent shall obtain permission from concerned authority for connecting drain to the road side drain with approval of drain layout and discharge of excess treated water.
 - viii) The proponent shall approve drain layout and sewage layout with plan for treatment and disposal of sewage waste.
 - ix) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.
 - x) The proponent shall obtain permission from concerned Fire Safety Authority and fire protection measures shall be implemented as per recommendation of the Fire Safety Authority.
 - xi) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
 - xii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
 - xiii) Before starting the construction project physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.
 - xiv) The PP shall obtain the required permission from concerned authority for discharge of storm water along with excess treated sewage water along with completion of all necessary formalities for obtaining unhindered ground access to connect the drainage point of the project site to the nearest public drain.
 - xv) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

ITEM NO. 03

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S JAGANNATH INDUSTRIAL AND LOGISTICS PARKS PRIVATE LIMITED FOR CONSTRUCTION OF PROPOSED WAREHOUSE WITH TOTAL BUILT-UP AREA: 32159.58 SQM ON IDCO PLOT NO-1, CORRESPONDING REVENUE PLOT NO. SABIK 269 (P), 270 (P), HAL - 269/4029 (P), 270(P), KHATA NO. - HAL-727/953, SABIK 807, 810 LOCATED IN VILLAGE - BANIPADA, TAHASIL - TANGI CHOUDWAR, DISTRICT - CUTTACK OF SRI ARUL MURUGAN - EC

1. This proposal is for Environmental Clearance of M/s Jagannath Industrial and Logistics Parks Private Limited for Construction of Proposed Warehouse with total Built- up area: 32159.58 sqm. on IDCO Plot No-1, corresponding revenue plot no sabik 269(P), 270(P), Hal-269/4029 (P), 270(P), khata no-hal-727/953, sabik - 807,810 located in village: Banipada, Tahasil: Tangi Choudwar, District: Cuttack of Sri Arul Murugan.
2. **Category:** This project falls under Category "B", Project or Activity 8(a) - Building and construction Projects as per EIA Notification dated 14th Sept, 2006 and its amendments.

3. **Location and connectivity:** The project is located on plot no. SABIK- 269(P), 270(P), HAL-269/4029(P), 270 (P), Khata No: HAL – 727/953, SABIK - 807 & 810 Village: Banipada, Tahasil: Tangi - Choudwar, Dist: Cuttack, Odisha. The project site can be demarcated in Toposheet no. 73H/14 with following geo coordinates - Latitude: 20°32'36.95"N to 20°32'52.51"N and Longitude: 85°52'13.76"E to 85°52'20.91"E. The project site is located at a distance of 3 Km from NH – 55 and connected through a 12m wide blacktopped road. Nearest Railway Station is Charbatia – 5Km. Nearest Airport is Biju Patnaik International Airport at 35Km. ARC Charbatia is at 6km. Due NOC has been obtained from ARC Charbatia for this project. SCB Medical College and Hospital is at 15km distance from project site. There is no perennial water body at close proximity of the project site. The project area and its buffer zone do not include any wild life corridor or fish ladder. The project isn't coming under any CRZ area.
4. The site is coming under IDCO, SPA, Bhubaneswar.
5. The allotted Plot area is 14.426 Acres (58,379.9 sqm), Net Plot Area is 13.72 Acres i.e. 55542.55 sqm. and Built-up area is 32159.58sqm.

6. **Area Statement:**

Sl. No	Details	Area In Sq. m	Area In Acres
1	Net Plot area	55,542.55	13.72
2	Total Ground Coverage Area of Buildings (54.35%)	30,186.39	
3	Roads And Pavements Area (16.20%)	8997.79	
4	Surface Parking (26.7% of FAR; 15.05% of the plot area)	8360.97	
5	Amenities and utility building area (1.83% of site area)	1017.08	
6	Green Belt Development Area (12.57% of site area)	6980.32	
BUILT UP AREA STATEMENT			
Sl. No	Floor Plan	Built Up Area in Sq.m	
1.	Warehouse Building 1	9337.28	
2.	Warehouse Building 1 Amenities Block	173.06	
3.	Warehouse Building I Canopy area + covered parking area	704.06	
4.	Warehouse Building	20,732.75	
5.	Warehouse 2 canopy area	685.91	
	Total Built up area	31633.06	
UTILITY BUILDINGS			
6	Pump room	140.00	
7	Substation	119.33	
8	Ground Floor Security Room	53.69	
9	First Floor TVS Facility Office	53.69	
10	Common Toilet	21.10	
11	B1 Drivers Restroom	118.31	
12	Security Cabin 1	9.90	

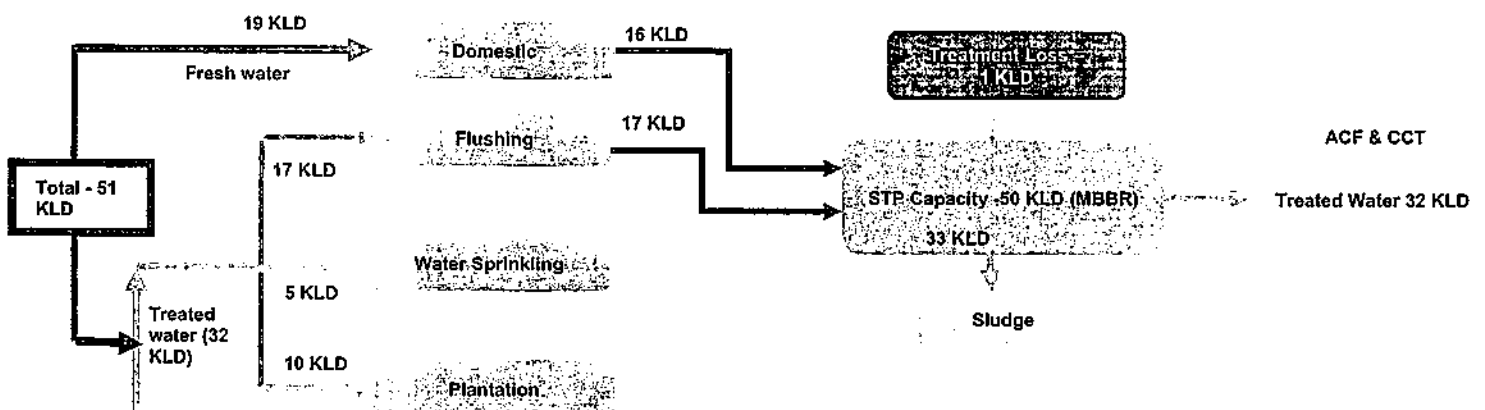
13	Security Cabin 2	9.90
Total Utility Area		526.52
Overall Built-up area		32159.58

7. **Water requirement:** The total water requirement is 51 KLD, out of which 19 KLD (37%) of fresh water will be met through bore well for drinking, washing and other domestic purpose. 32 KLD (63%) of water will be made available from treated wastewater for toilet flushing, water sprinkling and gardening purpose. Fresh Water will be sourced from ground water. Permission from ground water board will be obtained for withdrawal of ground water.

8. **Wastewater treatment:** Waste water generated will be treated in STP of capacity 50KLD.

Sl. No.	Description	Total Population	Water Requirement					Water Flow To STP				
			Flushing (recycled water)		Domestic (Fresh Water)		Gross Water	Flushing		Domestic		Total
			LPCD	LPD	LPCD	LPD	LPD	%	LPD	%	LPD	LPD
Domestic Water												
1	Commercial area (Floating population)	500	25	12500	20	10000	22500	100	12500	85	8500	21000
2	Commercial area (Fixed population)	100	45	4500	90	9000	13500	100	4500	85	7650	12150
3	Water sprinkling	--	--	--	--	5000						
4	Gardening	--	--	--	--	10000						
Total				17000		19000	51000		17000		16150	33150
Lpd: Liters Per Day												
Lpcd: Litres Per Capita Per Day												
Water Requirement for Gardening: 10 KL/D (STP treated water), Water requirement for Flushing 17 KLD (treated water), Washing: 5 KLD												

Water Requirement and water Balance



Proceedings of SEAC meeting held on 20.09.2024

T. N. Lakshmi
Environmental Scientist, SEAC

9. **Rainwater harvesting details:** Rain Water will be harvested through 11 nos. of Rain Water recharging pits.
10. **Power Requirement:** The project has estimated the requirement of power connection of 40 KW to meet its electricity need during the construction phase of the project. During the operation phase power requirement will be 600 kVA. The company has planned one transformer of 800 KVA and for power backup; one silent DG set of 62.5 kVA is proposed to be installed as laid down in the agreement. Further 2 x 250 kVA DG set will be installed during the operation phase of the project. Solar Power generation will be of 31.5 KW (5.3% of total power demand)
11. **Parking Requirement:** Total parking area provided is 8360.97 Sq.mt. which is mainly open parking area.
12. **Firefighting Installations:** The total nos of Fire Exits are 22 nos; total no of external fire hydrant is 21 nos and total no of internal fire hydrants is 6 nos. Fire safety recommendation has been obtained from Odisha Fire safety emergency services vide Recommendation no. RECOMM 1101020092024001907 dated 08.03.2024.
13. **Solid waste generation:** The solid waste generation from the project will be mainly organic and inorganic solid waste. Total waste generation from the project will be 0.25 Kg/ capita per day. The total waste generation from the project will be 150 Kg/ day. Out of the total waste generation 90 Kg/ day will be organic waste and 60 Kg/ day will be inorganic waste. The solid waste that is generated will be segregated at source as per Municipal Solid Waste (Management and Handling) Rules, 2000. The organic waste will be disposed through organic waste converter. Recyclable solid waste viz. Plastic, Metal, Glass etc will be sold to authorized agencies/disposed to local municipal service. The E-waste generated will be about 5 kg/ annum while Hazardous waste generated will be around 100kg/annum. Both E-waste & hazardous waste will be stored separately and shall be handed over to approved / authorized disposal agencies.
14. **Greenbelt:** Green belt is developed over an area of 6980.32 sqm which is 12.57% of the total plot area. No. of trees proposed is 709nos.
15. Traffic Study has been conducted and LOS calculated/found to be "C".
16. **Project cost:** The estimated project cost is ₹45Crores and cost for EMP is Capital Cost – Rs. 54.0 (in Lakhs) & Recurring Cost – Rs. 9.5 (in Lakhs).
17. **Environment Consultant:** The Environment consultant M/s. Kalyani Laboratories Pvt. Ltd., Bhubaneswar along with the proponent made a presentation on the proposal before the Committee on 26.07.2024.
18. The SEAC in its meeting held on dated 26-07-2024 recommended the following:
- A. The proponent may be asked to submit the following for further processing of EC application:**
- Revisit total green belt area and submit revised greenbelt along with layout. The proponent needs to increase greenbelt (tree plantation) from 12.57% to minimum 20% of the total plot area as per norms.
 - Layout of the project area.

- iii) Obtain approval from Water Resources department, Odisha along with NOC from CGWA for ground water withdrawal.
- iv) The water requirement for the project is 51KLD which is too high for a logistics park proposal. The project proponent needs to submit proper justification for such high-water demand and revise accordingly.
- v) Detailed break-up of water requirement, taking into consideration the total number of working shifts to be taken up in a day. Revise water balance and submit accordingly.
- vi) Internal drainage layout plan and provision for discharge of storm water to nearest IDCO drain. NOC/Permission from concerned authority to be obtained for discharge of storm water to nearest public drain even if the project assured for Zero Liquid Discharge (ZLD).
- vii) Ventilation arrangement details as per the norms.
- viii) Traffic study Report vetted by Institute of repute.
- ix) The SEAC observed that the width at the entry and exit point is less. The internal road width at the entry and exit point needs to be increased to 20-25meter taking into consideration for future development /expansion in that area.
- x) Precautionary measures to be taken for elephant movement in that area in consultation with forest department.
- xi) SOP for sanitation of the employees and hygiene guidelines to be followed.
- xii) Provision to be kept for indoor air quality Monitoring.

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

- i) Environmental settings of the project site.
- ii) Verify if the site is a flood prone area.
- iii) Construction activity if any started at the site and extent of construction activity.
- iv) Road connectivity to the project site.
- v) Drainage network at the site along with plan of discharging excess treated sewage water and storm water to the nearest public drain.
- vi) Discharge point for discharge of treated water and distance of the discharge point from the project site.
- vii) Any other issues including local issues.

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
1.	Revisit total green belt area and submit revised greenbelt alongwith layout. The proponent needs to increase greenbelt (tree plantation) from 12.57% to minimum 20% of the total plot area as per norms.	The layout plan has been revised and the green belt proposal has been increased to 11755.91 sq. m which is 20.14 % of the plot area. Revised layout plan is attached as Annexure 1.
2.	Layout of the project area.	Revised layout plan showing the Allotted plot area, Net plot area and FAR showing all the features are attached as Annexure 2.
3.	Obtain approval from Water	NOC has been obtained from CGWA for

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	Resources department, Odisha alongwith NOC from CGWA for ground water withdrawal.	withdrawal of ground water for the project. Copy of the NOC from CGWA attached as Annexure 3 . As per the allocation letter we will make an undertaking with IDCO for water supply during the operation phase. Copy of the allocation letter attached Annexure 4 .
4.	The water requirement for the project is 51KLD which is too high for a logistics park proposal. The project proponent needs to submit proper justification for such high water demand and revise accordingly.	As per Central ground water authority, Govt. of India (Estimation of water requirement for drinking and domestic use (Source: NBC 2016, BIS) water requirement for factories is 45 Liters/ day/ person for the non-residential workers. For residential workers water requirement will be 135 Liters/ day/ person. The calculation of water requirement is based on above criteria. Detail water requirement calculation is attached for reference. Annexure 5 .
5.	Detailed break-up of water requirement, taking into consideration the total number of working shifts to be taken up in a day. Revise water balance and submit accordingly.	Detail breakup of water requirement taking into consideration the total no of working shifts is given in Annexure 5 .
6.	Internal drainage layout plan and provision for discharge of storm water to nearest IDCO drain. NOC/Permission from concerned authority to be obtained for discharge of storm water to nearest public drain even if the project assured for Zero Liquid Discharge (ZLD).	The project is a part of IDCO development area. As per the provision IDCO will provide drainage facility for discharge of storm water from the project site. The copy of the agreement is attached as Annexure 4 . Internal drainage layout of the project is attached as Annexure 6.
7.	Ventilation arrangement details as per the norms.	Details of ventilation arrangement is attached as Annexure 7 .
8.	Traffic study Report vetted by Institute of repute.	Traffic study report has been vetted by Civil Engineering Department, KIIT Deemed to be University. Copy of the report attached as Annexure 8 .
9.	The SEAC observed that the width at the entry and exit point is less. The internal road width at the entry and exit point needs to be increased to 20-25meter taking into consideration for future development /expansion in that area.	The road width at the entry and exit point has been provided as 9m (30 ft.). The entry/ exit point will connect to the internal road of IDCO which is 12m wide. The entry/ exit gate has been demarcated in the layout plan Annexure 2 .
10.	Precautionary measures to be taken for elephant movement in that area in consultation with forest department.	The project site is located within the IDCO industrial Estate. The project site is located at a distance of more than 10 Km from Kapilas wildlife sanctuary. There is no elephant corridor exists within 5Km radius of the project site. Map showing the distance of the Project from Kapilas Wildlife sanctuary is attached. Annexure 9 . So there will be no possibility of elephant movement near the project site. The boundary wall will be constructed with a height of approx. 3m which will act as barriers to restrict elephant movement.
11.	SOP for sanitation of the employees	SOP for sanitation of the employees and

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	and hygiene guidelines to be followed.	hygiene guidelines to be followed attached as Annexure 10
12.	Provision to be kept for indoor air quality Monitoring.	We are herewith submitting the undertaking that will conduct the indoor air quality monitoring once in a month in the logistic park. Copy of the undertaking attached Annexure 11.

20. The proposed site was visited by the sub-committee of SEAC on 21.08.2024. Following are the observations of the sub-committee:

- a) The site is located at Road side in Choudwar allotted by IDCO. There was no construction at site.
- b) Site conditions and compliance required:
 - i) The site has no drain but PP informed that this will be developed by IDCO. Copy of IDCO agreement to be given.
 - ii) There are two power lines including several poles passing at one side of site. PP needs to submit compliance for shifting of these poles or revised layout leaving the safety area where these lines are there.
 - iii) Submit revised layout showing RWH and recharge pits with dimensions and capacity.
 - iv) As there is a local road towards end of one side, PP informed that they will leave that road and area for the local. PP will use that area for Plantation and green belt. So, PP needs to submit revised layout and revised greenbelt showing surface plan
 - v) Fire measures and control system to be provided.

After detailed discussion, the SEAC decided to take the decision on the proposal after receipt of the following from the proponent raised during site visit:

- i) The site has no drain but PP informed that this will be developed by IDCO. Copy of IDCO agreement with the Project Proponent has been submitted. But An undertaking submitted by PP to take NOC/Permission from concerned authority to be obtained for discharge of storm water to nearest public drain alongwith drainage map attached. (Please check if it can be considered).
- ii) There are two power lines including several poles passing at one side of site. PP needs to submit compliance for shifting of these poles or revised layout leaving the safety area where these lines are there.
- iii) Submit revised layout showing RWH and recharge pits with dimensions and capacity.
- iv) As there is a local road towards end of one side, PP informed that they will leave that road and area for the local. PP will use that area for Plantation and green belt. So, PP needs to submit revised layout and revised greenbelt showing surface plan
- v) Fire measures and control system to be provided.
- vi) Detailed break-up of water requirement, taking into consideration the total number of working shifts to be taken up in a day. Revise water balance and submit accordingly.

- vii) The SEAC observed that the width at the entry and exit point is less. The internal road width at the entry and exit point needs to be increased to 20-25meter taking into consideration for future development /expansion in that area.
- viii) There is a mis-match to the observation during site visit with regard to no of trees and explanation given by PP in ADS and figures given during presentation. Since, all the figures are different, a vivid explanation is required to be submitted by PP, before considering for EC.

ITEM NO. 04

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR PROPOSED (B1+B2+G+15) STORIED BUILDING FOR IT PARK CUM FOOD COURT OF M/S ROYALE HOTELS PVT. LTD. AT CHANDAKA INDUSTRIAL ESTATE, MOUZA - CHANDRASEKHARPUR, BHUBANESWAR, DIST- KHURDA, ODISHA - EC

1. This proposal is for Environmental Clearance of proposed (B1+B2+G+15) Storied building for IT Park Cum Food Court of M/s Royale Hotels Pvt. Ltd. at Chandaka Industrial Estate, Mouza- Chandrasekharpur, Bhubaneswar, Dist- Khurda, Odisha.
2. **Category:** The project falls under category "B" or activity 8 (a) - Building and construction projects, as per the EIA Notification 2006 and amendments thereafter.
3. **Location and Connectivity:** The proposed site is located at IDCO Plot No. - F/104, F/103/1, F/103/2, F/103/3, Corresponding to Revenue Plot No. 7(P) & 44 (P) Chandaka Industrial Estate, Mouza - Chandrasekharpur, Bhubaneswar, Dist- Khurda, Odisha. The Geographical co-ordinate of the project site is: Latitude - 20° 20' 33.31" N & Longitude - 85° 48' 32.74" E and Kissam of Land: Gharabari. The site is situated near Infocity which is adjoining to Venketeswar English Medium School, Chandrasekharpur, Bhubaneswar. The nearest railway station is Bhubaneswar Railway station at a distance of approx 9.2 Km in South-East direction. The nearest airport is Biju Patnaik Airport at a distance of approx. 9.6 Km in South direction from project site. The site is easily accessible from Nandan Kanan to Infocity Road.
4. The site is coming under Bhubaneswar Development Authority, Bhubaneswar.
5. The total plot area is 8092.0 sq.mt. /2.0 Ac./0.809 Ha. with total built-up area 40830.71 sq.mt.
6. The Building Area Details of the Project in tabulated form:

Particular	Proposed	Permissible
Project Name	Proposed (B1+B2+G+15) Storied building for IT Park Cum Food Court	
Total Plot Area	8092.00 sqm	--
Road Affected Area	364.74 sqm	--
Net Plot Area	7727.26 sqm	
Ground Coverage	3013.63 sqm (39%)	--
FAR Area	28679.75 sqm	--
FAR	3.71	
Total Built up Area	40830.71 sqm	--
Maximum Height	78.3 m	--
Road Area	8,065.10 sqm	--
Basement Parking Area	11656.72 sqm	11471.9 sqm
Total Parking Area	11656.72 sqm	
Green Belt Area	1661.36 sqm (21.5 %)	1545.45 sqm (20 %)
Maximum No. of Floor	B1+B2+G+15	--
Power Requirement	2108.11 KW	--

Particular	Proposed	Permissible
Solar	116.01 KW	
No. of DG sets	2x1010 KVA & 1x500 KVA	--
Fresh Water requirement	142.3 KLD	--
Sewage Treatment Plant	STP Capacity – 200 KLD	--
Solid Waste Generation	679.4 kg/day	
Estimated Population- Residential, Commercial, Floating/visitors	Commercial- 2321 Nos. Visitor- 2992 Nos.	--

7. **Water Requirement:** Fresh make up of 142.3 m³/day will be required for the project which will be sourced from IDCO Supply Water.
8. **Wastewater generated:** Total waste water generated from the commercial building is 196.3 KLD which is treated in STP of Capacity 200 KLD. After treatment, treated water will be used in Dust Suppression (6.2KLD in summer only), Landscaping (6.6KLD in summer only), HVAC (75.0KLD) and drain (16.2KLD in Non monsoon and 29.0KLD in Monsoon).
9. **Rain Water Harvesting:** Rain Water harvested through 16 nos. of Rain Water recharging pits.
10. **Power requirement:** - Total Power requirement of the proposed building is 2108.11 KW, Source is TPCODL, 2 x 1010 KVA & 1x500 KVA DG Sets is provided. For the proposed project height of the stack shall be 85 m. Total 116.01 KW Solar Power Generation which is 5.5% of total power required in project consisting of 30 Nos. of Solar Street Light poles of 2.16 KW capacities is directly connected with Solar Panel and 113.85 KW Solar energy generated from 55 nos. of PV Panels is distributed to Grid with proper agreement.
11. **Rainwater harvesting:** - Total 191.2 cum Rain Water is harvested through 16 nos. of recharge pits.
12. **Parking requirement:** - Total parking area provided is 11656.72 Sq.mt. and total 364 nos. of ECS and location of parking area is Basement.
13. **Green Belt Development:** - Greenbelt is developed over an area of 1661.36 sqm which is 21.5% of the total plot area. Total 109 nos. of plants to be planted and 3 tier plantations.
14. **Solid Waste Generation:** -

S. No.	Category	Counts (heads)	Waste generated (kg/day)
1.	Commercial	2321 @ 0.15 kg/day	348.2
2.	Floating	2992 @ 0.10 kg/day	299.2
3.	STP sludge		32.0
TOTAL SOLID WASTE GENERATED			679.4 kg/day

15. **Project Cost:** The estimated project cost is 85.0 Crores and cost for EMP is 1.85 Crores.
16. **Environment Consultant:** The Environment consultant M/s Centre for Envotech & Management Consultancy Pvt. Ltd, Bhubaneswar along with the proponent made a presentation on the proposal before the Committee on 03.02.2024.
17. The SEAC in its meeting dated 03-02-2024 recommended the following:
 - A. The proponent may be asked to submit the following for further processing of EC application:

- i) IDCO allotment letter for the proposed land allotted as previously for hotel and now change to IT park cum Food Court.
- ii) Drainage plan & water permission approved by IDCO.
- iii) The effluent generated from the HVAC should be treated prior to discharge or reuse. Details of the treatment system.
- iv) Adequate measures should be taken to control noise pollution & vibrational activities during construction phase.
- v) PP should ensure provision for additional 5% parking space along with the existing allotted 40% parking space as it is a commercial unit. Revised Layout for parking to be submitted.
- vi) Detailed traffic study report duly vetted by an institute of repute.
- vii) Dust control during construction period and also during transportation to outside by roads should be managed.

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

- i) Environmental settings of the project site.
- ii) Verify if the site is a flood prone area.
- iii) Construction activity if any started at the site and extent of construction activity.
- iv) Road connectivity to the project site.
- v) Drainage network at the site.
- vi) Discharge point for discharge of treated water and distance of the discharge point from the project site.
- vii) Verification for additional parking space provision.
- viii) Any other issues including local issues.

18. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	IDCO allotment letter for the proposed land allotted as previously for hotel and now change to IT park cum Food Court.	Allotment letter from IDCO for the change of activity from Four Star Hotel to IT Park vide letter no. HO/MSME/A-5451/01- 06/23 25832, dated 17.08.2023. IDCO allotment letter is attached in Annexure- 1.	Submitted.
2.	Drainage plan & water permission approved by IDCO.	Water permission has been obtained from IDCO vide letter no. IDCO/W/S&EC-1/D2- 113/20-21 218, dated 13.02.2024. Water permission letter is attached in Annexure-2. All infrastructure facilities like Road,	Submitted.

S No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		Drain, Discharge of Water & Street Lightings has been provided by IDCO. The letter from IDCO regarding providing infrastructure facilities is attached in Annexure-3 .	
3.	The effluent generated from the HVAC should be treated prior to discharge or reuse. Details of the treatment system.	The effluent generated from HVAC system will be treated in Sewage Treatment Plant (STP) & treated water will be reused in system.	PP have not submitted the details of the treatment system for effluent generated from HVAC system.
4.	Adequate measures should be taken to control noise pollution & vibrational activities during construction phase.	Noise control measures during construction phase is attached in Annexure-4 .	Submitted.
5.	PP should ensure provision for additional 5% parking space along with the existing allotted 40% parking space as it is a commercial unit. Revised Layout for parking to be submitted.	Total Parking area provided for the proposed building is 11,656.72 sqm which is 40% of the FAR area and additional 5% parking will be provided to visitor. Details parking plan is attached in Annexure-5 .	Submitted.
6.	Detailed traffic study report duly vetted by an institute of repute.	Traffic Study Report has been vetted by Indian Institute of Technology (IIT) Bhubaneswar & the vetted traffic study report is attached in Annexure-6 .	Expected V/C in the year 2033-2034(with the project) is 0.526, i.e., LOS is C.
7.	Dust control during construction period and also during transportation to outside by roads should be managed.	Dust control measures during construction phase is attached in Annexure-7 .	Submitted.

19. The proposed site was visited by the sub-committee of SEAC on 02.03.2024. Following are the observations of the sub-committee:

- The land belongs to IDCO. There is road side drain.
- The PP needs to submit the drain plan showing the fallout.
- Permission to discharge excess treated water along with plan to treat organic waste.
- Green belt (excluding land scape) to be minimum 20% and PP to plan for possible parking of plus 40% inside the premises.
- All other points asked during presentation to be complied.

20. The SEAC in its meeting held on dated 03-07-2024 decided to take decision on the proposal after receipt of the following from the proponent as raised during site visit: The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	The PP needs to submit the drain plan showing the fallout.	STP treated water & Storm Water will be discharge to nearest municipal drain i.e. Master Drain No. 1. Drain layout showing the fallout to nearest municipal drain is attached in Annexure-1.	layout is attached showing the same.
2.	Permission to discharge excess treated water along with plan to treat organic waste.	All infrastructure facilities like Road, Drain, Discharge of Water & Street Lightings has been provided by IDCO. The letter from IDCO regarding providing infrastructure facilities is attached in Annexure-2. Organic waste will be treated in Organic Waste Converter. Details design of Organic Waste Converter is attached in Annexure-3.	Annexure 2 & 3 is not mentioned. However, a letter dtd 13.02.2024 from Divisional Head, MSME regarding providing infrastructure facilities and flow chart is attached showing Organic Waste Converter.
3.	PP have not submitted the details of the treatment system for effluent generated from HVAC system. Details of the treatment system.	There is no treatment system considered as soft water shall be used in cooling towers and environment friendly CFC/HCFC free refrigerant shall be used in chillers. Details attached in Annexure-4.	-
4.	PP to submit revise layout confirming minimum 20% green belt (excluding land scape).	Total greenbelt area provided for the proposed building is 1661.36 sqm, which is 21.5% of the total plot area (7727.26 sqm). We propose to develop three tier hierarchal greenbelt along the periphery of the building. Greenbelt drawing is attached in Annexure-5.	A greenbelt layout is attached but exactly how much increased, calculation not shown.

Considering the information furnished and the presentation made by the consultant, M/s Centre for Envotech & Management Consultancy 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 – C in addition to the following specific conditions.

- i) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.
- ii) The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess STP treated water to the nearest drain without which the Proponent will not start construction work. Also, in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.
- iii) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.
- iv) The proponent shall obtain permission from concerned Fire Safety Authority.

- v) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- vi) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- vii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
- viii) The PP will not commence construction unless the drain lay out is finalized and permission given for the same by the authority to discharge excess treated water & storm water.
- ix) Before starting the construction project physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.
- x) The PP shall obtain the required permission from concerned authority for discharge of storm water along with excess treated sewage water along with completion of all necessary formalities for obtaining unhindered ground access to connect the drainage point of the project site to the nearest public drain.
- xi) The HVAC system uses soft water for cooling and the same shall be recycled into the system through cooling tower after proper treatment.
- xii) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

ITEM NO. 05

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S MAA BHAGWATI RE-ROLLING MILLS PVT. LTD FOR REGULARIZATION OF RE-ROLLING MILL PLANT OF 60000 TPA (ROADS, ANGELS, FLATS, BARS & PATTI) AND GALVANIZATION UNIT OF 30000 TPA CAPACITY, IN COMPLIANCE TO THE MOEF&CC NOTIFICATION DATED 20TH JULY 2022 OVER AN AREA 2.2 ACRES (0.89 HECT.) AT VILLAGE RATAKHANDI, PO: BISRA, DIST: SUNDERGARH OF SRI RAJESH KUMAR RAJUKA - 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 EIA Notification, 2006 and amendment thereafter.
2. This proposal is for Terms of Reference for Environmental Clearance of M/s Maa Bhagwati Re-Rolling Mills Pvt. Ltd for Regularization of Re-Rolling Mill Plant of 60000 TPA (Roads, Angels, Flats, Bars & Patti) and Galvanization Unit of 30000 TPA capacity, in compliance to the MoEF&CC Notification dated 20th July 2022 over an area 2.2 acres (0.89 Hect.) at Village Ratakhandi, PO: Bisra, Dist: Sundergarh of Sri Rajesh Kumar Rajuka.
3. **Category:** This is a Category - B project which falls under schedule 3(a), Metallurgical Industries (ferrous & nonferrous) as per the EIA Notification 2006 and amendments thereafter. Proposed project is Regularization of Re-Rolling Mill, in compliance to the MoEF&CC Notification dated 20th July 2022, all Cold Rolled Stainless Steel Manufacturing Industries require prior environment clearance as per EIA notification 2006.

4. Consent to Operate from SPCB, Odisha has been obtained for the above plant vide Consent Order No. 0560/SPCB/RKL (APC & WPC) dated 31.03.2017 for Re-Rolling Plant and Consent Order No. 0599/SPCB/RKL (APC & WPC) dated 22.06.2017 both are valid till 31.03.2027.
5. **Location and connectivity:** M/s Maa Bhagawati is located at Khata No. 38/94 (Plot No. 357/559, 358/560, 359/361) & 38/95 (Plot No. 359/563, 357/562, 359/364) in Village Ratakhandi, PO: Bisra, Dist: Sundergarh, Odisha. The geocoordinates of the project are: Latitude 22°15'0.43"N and Longitude 84°59'9.60"E. The nearest Railway Station is Bisra Railway Station which is located at about 1.1 km in ESE direction and Rourkela Airport is at a distance of approx. 17.5 km in WNW direction from the project site.

6. **Manufacturing process:**

- a) Process involved in Re-rolling Mills are: When the rolling temperature of billet /ingot reaches 1200 degree centigrade it removes from the discharge gate by the ejector and drop down in roughing mills conveyor. Re heating furnace discharge billet/ ingot at 1100–1200-degree centigrade temperature which is rolled using passes 6 Passes. 2 passes and 1 pass in stand 1, 2 & 3rd of roughing mill respectively with the help of Y-table and turning wall. Billet/ Ingot's cross-sectional area decrease as its length is increase. Material after rolling in roughing mill reach first stand to 7th stand of intermediate mill with the help of two nos pinch roll and two nos of rotary shear after cutting of front-end rear end of the pcs. Air Cooling at cooling bed till black colour, Standard length cutting by shearing machine (Heat/lot wise and Straightening (if required) by straightening machine
- b) Process involved in galvanizing of steel are Pickling/cleaning of Rolling Products to remove surface oxides and impurities, Mechanical Scraping of the surface, Pre-treatment, cleaning and degreasing by special solvent like sodium hydroxide solution and followed by pickling, galvanizing of rolled products by immersing of Rerolled product in the molten bath of Zinc followed by water quenching, Inspection of Galvanized and Dispatch to market.

7. **Raw materials required:**

Table: Raw Material for Rolling Mill (M.S Pipe)

S.No.	Raw Material	Quantity (TPA)	Source	Mode of transport
1	Billets/Ingots	63,000	Open Market	Road

Table: Raw Material required in the Galvanizing Unit for steel Products (Cold Plating)

S.No.	Raw Material	Quantity (TPA)	Source	Mode of transport
1	Rolled Products (Roads, Angels, Flats, Bars & Patti)	30500	Captive Plant	--
2.	Zinc	685	Open Market	Road
3.	Acid	595	Open Market	Road
4.	Lime Treatment	435	Open Market	Road
Total		32215		

8. **Water Requirement:** Total one-time water demand is 37 KLD out of which fresh water 21 KLD will be sourced from Ground Water. NOC will be obtained from CGWA. Details are as given below:

Item	Fresh (KLD)	Recycled (KLD)	Total Water Demand (KLD)
Industrial Use (Rolling)	5	12	17
Domestic Use	2	-	2
Plantation and Dust Suppression	4	-	4
Galvanizing	10	4	14
Total	21	16	37

9. **Power Requirement:** The total power requirement for the existing plant is 1.5 MW. The power will be sourced from State Grid. There is 1 DG set of 200 kVA for emergency.

10. **Waste generation:**

- The treated effluent from Re-Rolling Mill is being utilized for dust suppression and ash conditioning. No effluent is being let out of the plant premises. Hence Zero effluent discharge concept is being implemented. All the domestic sewage is being transferred to septic tank and is being used for the green belt development. Same practise will be followed in future.
- A very common and simple treatment applied to galvanic wastewaters is chemical precipitation with lime. In order to reduce the volume and water content of the precipitate formed at the last stage of sedimentation, inorganic coagulants (for example, iron chloride) or polyelectrolytes are added to the wastewater. Zinc can be recovered in insoluble forms as hydroxides by using several alkaline reagents, like CaO or Ca(OH)₂, Mg(OH)₂, NaOH, and NH₄OH. Coagulation and flocculation followed by sedimentation and filtration also employed to remove heavy metal from wastewaters. Coagulation is the destabilization of colloids by neutralizing the forces that keep them apart. Many coagulants are widely used in the conventional wastewater treatment processes such as aluminium, ferrous sulphate and ferric chloride, resulting in the effective removal of wastewater particulates and impurities by charge neutralization of particles and by enmeshment of the impurities on the formed amorphous metal hydroxide precipitates

11. **Solid waste generation and management**

S. No	Waste	Quantity	Management
a)	Mill Scale	1600 TPA	Sold to Nearby by Steels industry
b)	End Cutting	1400 TPA	Sold to Nearby by Steels industry
c)	Used Oil from DG Set	0.1 KL/annum	Reused in industry for machine cleaning
d)	Acid neutralization lime sludge generated	1217 TPA	Sold to registered recyclers
e)	MS Scrap	855 TPA	Sold to Nearby by Steels industry
f)	Mill Scale (Pickling)	330 TPA	Sold to Nearby by Steels industry
g)	ETP Sludge	0.5 TPA	TSDF

12. **Greenbelt development plan:** Approx. 0.293Ha. of total land availability is reserved for greenbelt development plan. About 750 Nos. (0.293Ha x 2500 plant/ha) Plants will be maintained. Approx. 200 Nos. of plants has been already planted at site. Plant species will be planted after consultation of local forest department. Greenbelt of 33% of the area

will be developed in the plant premises as per CPCB guidelines. The tree species to be selected for the plantation are pollutant tolerant, fast growing, and wind firm, deep rooted. A three-tier plantation is proposed comprising of an outer most belt of taller trees which will act as barrier, middle core acting as air cleaner and the innermost core which may be termed as absorptive layer consisting of trees which are known to be particularly tolerant to pollutants.

13. **Manpower Requirement:** The employment is around 300 Persons and contractual labour-50 Nos. In indirect employment, there would be development of externalities viz. local logistics, warehousing etc. as supporting services.
14. **Total Project cost:** The existing project cost is estimated to be 8.95 Crores. Proposed EMP Cost is INR 40.00 Lakhs as Capital Cost & INR 15.00 Lakhs as Recurring Cost

S. No	Particulars	Amount (In lakhs)	
		Capital Cost	Recurring Cost/ Annum
a)	Air Pollution /Noise pollution Control System	25	5.00
b)	Green Belt Development	08	2.00
c)	Environment Monitoring and Management	-	5.00
d)	Water Pollution Control System	03	1.00
e)	Occupational Health& Safety	04	2.00
	Total	40	15.00

15. **Environment Consultant:** The Environment consultant M/s AmplEnviron Private Limited, Hyderabad along with the proponent made a presentation on the proposal before the Committee on 28.08.2023.

16. The SEAC in its meeting dated 28-08-2023 recommended the following:

A. The proponent may be asked to submit the following for further processing of EC application:

- a) Copy of all consent certificates (CTE, CTO etc.)
- b) Copy of authorization for Hazardous waste disposal to RAMKY.
- c) As reported, the run off rain water from the plant is disposed to the back fields i.e. to non-industrial areas. The proponent shall have a provision for storm water drainage system and management to collect run-off water from the whole plant.
- d) Land documents along with kizam of land.
- e) Details of HCl storage and mitigation measures adopted for acid leakage.
- f) Note on how ETP treated water is to be reused in rolling mill.
- g) Details of fly/bottom ash generation and its management.
- h) Details of spent refractions in terms of generation and permission for its disposal/selling to authorized vendors as they are hazardous.
- i) Details of Wastewater Treatment Facility of galvanizing unit as well as other plant facilities

- j) During the presentation, it was come to know that there is no plantation in the existing plant and also no vacant space is available for plantation. The industry has to clarify how to develop greenbelt of 33% inside the plant premises.

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

- a) Environmental settings of the project site.
- b) Extent of construction activity and operational status of all the units.
- c) Road connectivity to the project site.
- d) Drainage network at the site.
- e) Greenbelt development in the existing plant.
- f) Detailed Wastewater Treatment facility available for galvanizing unit as well as other plant facilities.
- g) Vacant land available.
- h) Any other issues including local issues.

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																					
1.	Copy of all consent certificates (CTE, CTO etc.)	<p>All consent certificates (CTE, CTO etc.) are enclosed as Annexure 1. Chronology of CTE/CTO</p> <table border="1"> <thead> <tr> <th>S.No.</th> <th>CTE/CTO details</th> <th>Issue Date</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>CTE for Production of 4500 MT/Year of Re-Rolling Products vide letter No. 1502</td> <td>21/05/2010</td> </tr> <tr> <td>2.</td> <td>CTO for Production of 4500 MT/Year of Re-Rolling Products vide letter No. 241/ Consent order No. 0159/SPCB/RKL/APC&WPC, valid till 31.03.2012</td> <td>15/02/2011</td> </tr> <tr> <td>3.</td> <td>Amendment in existing CTE letter No. 1502 dated 21/05/2010 vide memo No. 2506</td> <td>09/11/2011</td> </tr> <tr> <td>4.</td> <td>Renewal of CTO for Production of 4500 MT/Year of Re-Rolling Products vide letter No. 1559/ Consent order No. 0159/SPCB/RKL/APC&WPC, valid till 31.03.2016</td> <td>11/07/2012</td> </tr> <tr> <td>5.</td> <td>Amendment in existing CTE for expansion from 4500 MTPA to 24000 MTPA of Re-Rolling Products vide letter No. 1051</td> <td>19/03/2016</td> </tr> <tr> <td>6.</td> <td>CTO for Production of 24000</td> <td>30/04/2016</td> </tr> </tbody> </table>	S.No.	CTE/CTO details	Issue Date	1.	CTE for Production of 4500 MT/Year of Re-Rolling Products vide letter No. 1502	21/05/2010	2.	CTO for Production of 4500 MT/Year of Re-Rolling Products vide letter No. 241/ Consent order No. 0159/SPCB/RKL/APC&WPC, valid till 31.03.2012	15/02/2011	3.	Amendment in existing CTE letter No. 1502 dated 21/05/2010 vide memo No. 2506	09/11/2011	4.	Renewal of CTO for Production of 4500 MT/Year of Re-Rolling Products vide letter No. 1559/ Consent order No. 0159/SPCB/RKL/APC&WPC, valid till 31.03.2016	11/07/2012	5.	Amendment in existing CTE for expansion from 4500 MTPA to 24000 MTPA of Re-Rolling Products vide letter No. 1051	19/03/2016	6.	CTO for Production of 24000	30/04/2016
S.No.	CTE/CTO details	Issue Date																					
1.	CTE for Production of 4500 MT/Year of Re-Rolling Products vide letter No. 1502	21/05/2010																					
2.	CTO for Production of 4500 MT/Year of Re-Rolling Products vide letter No. 241/ Consent order No. 0159/SPCB/RKL/APC&WPC, valid till 31.03.2012	15/02/2011																					
3.	Amendment in existing CTE letter No. 1502 dated 21/05/2010 vide memo No. 2506	09/11/2011																					
4.	Renewal of CTO for Production of 4500 MT/Year of Re-Rolling Products vide letter No. 1559/ Consent order No. 0159/SPCB/RKL/APC&WPC, valid till 31.03.2016	11/07/2012																					
5.	Amendment in existing CTE for expansion from 4500 MTPA to 24000 MTPA of Re-Rolling Products vide letter No. 1051	19/03/2016																					
6.	CTO for Production of 24000	30/04/2016																					

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	
			MT/Year of Re-Rolling Products vide letter No. 1515/ Consent order No. 0467/SPCB/RKL/APC&WPC, valid till 31.03.2021
		7.	Amendment in existing CTE for expansion from 2000 TPM to 5000 TPM of Re-Rolling Products vide letter No. 253
		8.	CTO for Production of 5000 TPM (60,000 MT/Year) of Re- Rolling Products vide letter No. 716/ Consent order No. 0560/SPCB/RKL/APC&WPC, valid till 31.03.2027
		9.	Amendment in existing CTE for following expansion: (i) Re-rolling products of quantity 60,000 TPA to 1,20,000 TPA {One additional Re-Heating Furnace- 1 x 12 T/Batch) (ii) MS Ingot and Billets (IF-2 x 6 T/Heat)-29,000 TPA (iii) Billet Caster (CCM)-29,000 TPA (iv) Galvanized Steel-30,000TPA & (v) Slag Crusher for metal recovery from IF Slag- 1x10 TPH vide letter no. 1055
		10.	CTO for Production of 30,000 MT/Year of Galvanized Steel vide letter No. 1410/ Consent order No. 0599/SPCB/RKL/APC&WPC, valid till 31.03.2027
2.	Copy of authorization for Hazardous waste disposal to RAMKY.	HWA from PCB and MoU with Ramky for Hazardous disposal is enclosed as Annexure 2.	
3.	As reported, the run off rain water from the plant is disposed to the back fields i.e. to non-industrial areas. The proponent shall have a provision for storm water drainage system and management to	Detail of storm water drainage system and management to collect run-off water is enclosed as Annexure 3. Revised Layout of showing drainage system in plant is enclosed as Annexure 4.	

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent																																										
	collect run-off water from the whole plant.																																											
4.	Land documents along with kism of land.	<p>After detailed investigation of land documents of plant, we found the total project area is 2.77 Acres (1.1209 Ha.) instead of 2.20 Acres (0.89 Ha.). So, we requested you to kindly consider the corrected project area is 2.77 Acres (1.1209 Ha.) instead of 2.20 Acres (0.89 Ha.). The Land Details is given below:</p> <table border="1"> <thead> <tr> <th colspan="5">LAND DETAILS</th> </tr> <tr> <th>Khata No.</th> <th>Rev Plot No</th> <th>Kisam</th> <th>Area (in Acres)</th> <th>Plant Area (in Acre)</th> </tr> </thead> <tbody> <tr> <td rowspan="3">38/94</td> <td>357/559</td> <td>Karakhana</td> <td>0.175</td> <td rowspan="3">1.00</td> </tr> <tr> <td>358/560</td> <td>---do---</td> <td>0.055</td> </tr> <tr> <td>359/561</td> <td>----do---</td> <td>0.770</td> </tr> <tr> <td rowspan="3">38/184</td> <td>357/562</td> <td>Karakhana</td> <td>0.150</td> <td rowspan="3">1.20</td> </tr> <tr> <td>359/563</td> <td>---do---</td> <td>0.850</td> </tr> <tr> <td>359/564</td> <td>----do---</td> <td>0.200</td> </tr> <tr> <td>38/165</td> <td>359/643</td> <td>Karakhana</td> <td>0.570</td> <td>0.57</td> </tr> <tr> <td colspan="3"></td> <td style="text-align: right;">Total</td> <td>2.77</td> </tr> </tbody> </table> <p>Land Documents along with kism of land is enclosed as Annexure 5.</p>	LAND DETAILS					Khata No.	Rev Plot No	Kisam	Area (in Acres)	Plant Area (in Acre)	38/94	357/559	Karakhana	0.175	1.00	358/560	---do---	0.055	359/561	----do---	0.770	38/184	357/562	Karakhana	0.150	1.20	359/563	---do---	0.850	359/564	----do---	0.200	38/165	359/643	Karakhana	0.570	0.57				Total	2.77
LAND DETAILS																																												
Khata No.	Rev Plot No	Kisam	Area (in Acres)	Plant Area (in Acre)																																								
38/94	357/559	Karakhana	0.175	1.00																																								
	358/560	---do---	0.055																																									
	359/561	----do---	0.770																																									
38/184	357/562	Karakhana	0.150	1.20																																								
	359/563	---do---	0.850																																									
	359/564	----do---	0.200																																									
38/165	359/643	Karakhana	0.570	0.57																																								
			Total	2.77																																								
5.	Details of HCl storage and mitigation measures adopted for acid leakage.	Detail of HCL Storage and mitigation measures adopted for acid leakage is enclosed as Annexure 6.																																										
6.	Note on how ETP treated water is to be reused in rolling mill.	ETP Process detail and detail of reused in rolling mill is enclosed as Annexure 7.																																										
7.	Details of fly/bottom ash generation and its management.	Fly Ash/Bottom Ash- Nil generated at site																																										
8.	Details of spent refractions in terms of generation and permission for its disposal/selling to authorized vendors as they are hazardous.	Not applicable																																										
9.	Details of Wastewater Treatment Facility of galvanizing unit as well as other plant facilities	Detail of Wastewater Treatment Facility is enclosed as Annexure 7.																																										
10.	During the presentation, it was come to know that there is no plantation in the existing plant	<ul style="list-style-type: none"> The plant is located over an extent of 2.77 acres (1.1209 Ha). out of this 33.45 % of the area i.e. 0.375Ha. has been developed with greenbelt. 400 nos. plants were planted, and 310 nos are 																																										

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	and also no vacant space is available for plantation. The industry has to clarify how to develop greenbelt of 33% inside the plant premises.	<p>survived (77-80% survival rate) and present in the existing premises.</p> <ul style="list-style-type: none"> • No additional land is required for proposed expansion • Now, It is proposed to complete the 33% greenbelt area i.e. 0.375 Ha., which is completely available in project area. • It is proposed to plant total 950 nos of plants to • Complete 33% green area (310 existing plant + 640 additional plant). • 640 Nos. of samplings will be planted as part of gap filling within the existing premises. <p>Revised Layout of showing Greenbelt area in plant is enclosed as Annexure 4.</p>

18. The proposed site was visited by the sub-committee of SEAC on 01.06.2024. Following are the observations of the sub-committee:

- a) The team was accompanied by Sri Rajesh Kumar Rajuka and Sri Shivam Rajuka, Directors of the company.
- b) The plant is located very close to NH 320D, the road that connects Rourkela to Manoharpur.
- c) The galvanizing plant was under operation, whereas the rest of the units were under maintenance at the time of the visit. It was learnt from the project proponent that only the galvanizing unit is operated during the day time, whereas the rest of the units are operated during night time (7.00 PM to 7.00 AM) to protect the operators from heat.
- d) It was noticed that the galvanizing unit is being operated with proper precautionary measures. The acids are being stored in large containers and is being recycled. The waste water treatment facility is being used in a close circuit and the treated water is being used in the rolling mill as well as in the Zinc bath. A part of the waste water is also being used for dust suppression and plantation in the plant premises.
- e) While drainage network exists for the plant operations, there is no drainage network to handle the storm water. The runoff water is being released to the nearby fields without treatment. Moreover, in case of rain, muddy and slippery conditions are created, which could result in slip and trip hazards. The PP was advised to adopt measures to avoid muddy and slippery conditions within the plant premises.
- f) The storm water is discharged to the fields nearby in the north direction without any treatment. The project proponent is required to develop a drainage network followed by settling tanks to handle the runoff particularly during monsoon. The stored water may be used for plant operations as well as for dust suppressing and plantation activities. The treated water may also be used for ground water recharge through recharge pits. The detailed layout and design of drainage network and water and settling tanks are required to be presented for getting Environmental Clearance.
- g) Imported coal is being used in the furnace which is resulting in a small quantity of fly/bottom ash. The ash so generated is being used for brick construction by a brick factory belonging to a sister concern adjacent to the plant. The gaseous and

particulate matter control is being achieved through scrubbers. The efficiency of the scrubbers is required to be monitored at regular intervals.

- h) Some plantation exists within the plant premises. A few saplings that has been planted earlier had dried up due to improper maintenance. Vacant space is available within the plant premises and it is possible to maintain a greenbelt with proper planning. The PP is required to plant trees of the native species with thick foliage in the proposed greenbelt, while plants such as Gulmohar may only be planted near the boundary close to the road. The PP is required to submit the descanted locations and details of species to be planted to maintain a greenbelt in 33% area.
- i) It was observed that a few of the workers were not wearing the safety helmets. The PP was advised to enforce strict compliance of safety precautions within the plant premises.

19. The recent EIA notification of MoEF&CC, Govt. of India vide S.O. 2215(E), dated 07.06.2024 stipulates the requirement of Environmental Clearance for secondary metallurgical industry for non-toxic metals under project or activity 3 (a) as follows:

ii) Processes involving melting of nontoxic metals		
Fuel in the furnace	Category B2	Category B1
1. Solid or liquid fuel	≥ 0.03 MTPA to < 0.06 MTPA	≥0.06 MTPA
2. Gas fuel or electricity	≥0.06 MTPA to < 0.12 MTPA	≥0.12 MTPA
iii) Processes involving only heating of nontoxic metals with pickling		
Fuel in the furnace	Category B2	Category B1
1. Solid or liquid fuel	≥0.06 MTPA to < 0.12 MTPA	≥0.12 MTPA
2. Gas fuel or electricity	≥0.12 MTPA to < 0.18 MTPA	≥0.18 MTPA

The Standalone rolling or re-rolling or extrusion or piercing or forging or drawing units not involving any type of melting or pickling are exempted.

20. The Committee observed that the present proposal is coming under category B1 as per MoEF&CC, Govt. of India EIA notification vide S.O. 2215(E), dated 07.06.2024 as described at para 19 above.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Parivesh Environmental Engineering Services, Lucknow**, the SEAC prescribed the ToR as per **Annexure – D** for conducting detailed EIA study with following specific ToRs without conducting public hearing:

- i) The project proponent was advised to create settling tanks followed by recharge pits in the north west corner of the plant and utilize the water for various activities such as dust suppression, plantation etc., and reduce the dependency on ground water. The detailed layout and design are required to be shown at the time of presentation for Environmental Clearance.
- ii) The Project proponent shall not increase the connecting load from the state grid 20% more than the existing load.
- iii) Note on existing green area and proposed green area.

- iv) Furnish details on types of alloys, its composition obtained from suppliers, types of billets/ingots manufactures and quantity of billet production etc.
- v) The Project proponent shall provide supporting documents like Memorandum of Understanding (MoU) with Raw material suppliers in EIA report.
- vi) Detailed note on slag processing, composition of slag, facilities provided for processing along with flowchart for the same.
- vii) The Project Proponent shall clarify whether the slag will be used in land filling purpose; if so then area earmarked, how much period it can be stored and method of storage for it. If the Project Proponent is planning for slag disposal, then provide details on slag disposal process and its management.
- viii) The project proponent shall brief the Air Pollution Control measures taken and fume collection system in new induction furnaces.
- ix) The project proponent shall keep provision of solar power generation.
- x) The project proponent to furnish details of disposal of coal ash generated from the producer gas plant proposed under the expansion.
- xi) The PP shall submit the designated locations for the greenbelt superimposed on Google Earth imagery and also the number and type of saplings to be planted within the plant premises to maintain a minimum cover of 33% area. The details are required to be shown at the time of presentation for Environmental Clearance.

ITEM NO. 06

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR EXPANSION OF "SPARSH OPTIMUM HEALTHCARE PRIVATE LIMITED" WITHIN THE PREMISES OF PREVIOUS LAND AREA - 12224.23 SQM, OVER IDCO DRAWING PLOT NO - 126 CORRESPONDING TO REVENUE PLOT NO - 5052(P), 5054(P), 5050(P), 5051 (P), 5049(P), 4964(P), 5056(P), 4965(P), KHATA NO - 1030, 864, 987, 1000, 1027, 141, 1015 IN MOUZA - GADAKANA, MANCHESWAR INDUSTRIAL ESTATE, UNDER BHUBANESWAR MUNICIPAL CORPORATION OF SRI SAUMENDRA NARAYAN MISHRA - EC

1. This Proposal of Environmental Clearance for Expansion of "Sparsh Optimum Healthcare Private Limited" within the premises of previous land area - 12224.23 sqm, over IDCO Drawing Plot No - 126 corresponding to Revenue Plot No - 5052(P), 5054(P), 5050(P), 5051 (P), 5049(P), 4964(P), 5056(P), 4965(P), Khata No - 1030, 864, 987, 1000, 1027, 141, 1015 in Mouza - Gadakana, Mancheswar Industrial Estate, under Bhubaneswar Municipal Corporation of Sri Saumendra Narayan Mishra.
2. **Category:** As per EIA Notification, 2006 and its subsequent amendments, the proposed project falls under Category B in Schedule in item 8 (a) Building and Construction projects.
3. As per BMC Approval Letter for "Sparsh Optimum Health care Private Limited" vide letter no. 26534, Bhubaneswar, dated 21/09/2019, File no. MBP/BMC-02-0102/2018; About 7890 sqm. (50% of approved built up area of ("Sparsh Optimum Healthcare Private Limited") built-up area as approved by BMC has already been constructed by the proponent. As per the EIA Notification, 14th September, 2006, the Existing built up area is less than 20,000 sqm. Hence it does not attract Environmental Clearance for existing proposal.

4. **Location and connectivity:** The mine lease area is located over IDCO Drawing Plot No-126 corresponding to Revenue Plot No-5052(P), 5054(P), 5050(P), 5051 (P), 5049(P), 4964(P), 5056(P), 4965(P), Khata No-1030, 864, 987, 1000, 1027, 141, 1015. The proposed site is bounded by Latitude: 20°18'8.57"N to 20°18'3.42"N, Longitude: 85°51'10.73"E to 85°51'9.43"E bearing topo sheet no. - F45T15. The site approach road is connected to Mancheswar IE Road to VSS Nagar Road. The total site area is approximately 3.019 Acres. Project Site is well connected to Bani Vihar Station-0.91 Km-S, Bhubaneswar Railway station- 3.95Km-SW, Bhubaneswar Airport-6.81 Km-SW, NH-316-0.97 Km-SE, Biju Pattanaik Airport –6.81 km –SW.
5. Distance direction of Eco sensitive area are Nandankanan Zoological Park -10.1km – NNW, Chandaka Forest & Elephant Reserve- 12.60 Km-NW, Bharatpur PF-6.27 km –W, Nayapali RF-6.12 Km-W, Jagannath Prasad PF-6.78 Km-NW, Daspur RF-12.5 Km-W, Bholra RF-12.92 Km-NNW, Mendhasal RF-13.06 Km.
6. The site is coming under Bhubaneswar Development Authority.
7. The total plot area is 12224 sqm and Total built up area = 24924.18 Sqm.
8. The Building Plan for Construction and Expansion of M/s Sparsh Optimum Healthcare Private Limited is B+G+F to B+G+7 stories Super Specialty Hospital.
9. **Area Statement:**

SL.NO	LANDUSE	SQM	% of total plot area
1	Ground Coverage Area	2697.15	22.1
2	Internal Road	2329.16	19.1
3	Paved Area	1080.75	8.8
4	Green Belt Area	3456.06	28.3
5	Open Parking on ground	1769.61	14.5
6	Other Services Area	891.50	7.3
	Total	12224.23	100.00

PLOT AREA = 12224.23.Sqm. (AC. 3.019 Dec.)				
No.	floors	Built up Area In Sqm	Deduction Sqm	F.A.R Area Sqm
1	Basemet	6138.85	68.23	6070.62
2	Ground Floor	2669.74	68.23	2601.51
3	First Floor	2669.74	232.49	2437.25
4	Second Floor	2669.74	68.23	2601.51
5	Third Floor	2117.7	68.23	2049.47
6	Fourth Floor	2117.7	83.39	1541.13
7	Fifth Floor	2117.7	133.35	1984.35
8	Sixth Floor	2117.7	133.35	1984.35
9	Seventh Floor	2117.7	133.35	1984.35
10	Stair Cabin	187.61		187.61
	Total Built up Area	24924.18	988.85	23935.33

Total FAR Area	=	23935.330 SQM
Req. Parking =30 %		7,180.60
Total Parking in basement	=	2053.200
Total Parking on Ground	=	5136.110
Provided Parking	=	7189.31
FAR =1.99		
Req. open Space-30% of total layout		3593.240
Provided Open space		9087.4

10. **Water requirement:**

Proceedings of SEAC meeting held on 20.09.2024

Trayak
Environmental Scientist, SEAC

Sl.no.	Summary of Water Demand	Round off	Units
1	Fresh water demand	171	kl
2	Flushing water requirement (from STP)	50	kl
	TOTAL WATER REQUIREMENT	221	KL
3	Waste water flows to STP	148	kl
4	Waste water flows to ETP	50	KL
	TOTAL Sewage/effluent generate	200	KL
5.	Treated Water Recovered from STP	180	KL
6.	Re-Use of Treated Water from STP		
	Flushing Water Requirement	50	KL
	HVAC Cooling tower	105 (20 kl fresh water)	KL
	Gardening and Landscape assumed	25	KL
	Total water reuse	180	KL
	Excess treated water discharge to Municipal Sewer (If any)	0.0	KL

11. **Wastewater details:** the wastewater will be treated in STP of Capacity 200 KLD & ETP of Capacity 60 KLD.
12. **Power Requirement:** Total Demand Load (KW) - Existing- +Proposed= 3334.4 KWH or 4167.8 KVA. The power supply shall be supplied by Odisha state electricity Board. The electricity will be taken from TPCODL. 2x 2200 DG Sets are provided.
13. **Rainwater harvesting details:** Total Runoff from Storm Water from Site is 32 m³/Hr and 768 cum/Day. So, 68 nos. Rain water Harvesting Pits are required. The rain water overflow from all Rain water harvesting pit shall be channelized into a central sump. Storm water from this sump can be pumped or connected to City Storm Water drain line.
14. **Parking Requirement:** Total parking area provided 7189.310 Sq.mt. and also, in terms of 422 ECS for 4-Wheeler and 122 ECS for 2-Wheeler. Adequate provision of 7189.310 sqm (30 % of total FAR Area as per ODA planning standards) will be kept for car/vehicles parking at the Basement as well as Ground / surface parking purpose.

Description	No. Of ECS	Area
4-wheeler parking	95	Basement
4-wheeler parking	300	Ground Floor
2-wheeler parking	105	Basement
Visitors Parking		
4-wheeler parking	27	Ground Floor
2-wheeler parking	17	Ground Floor

15. **Solid waste generation:** During the operation phase, waste will comprise domestic as well as Biomedical waste. The solid waste generated from the project shall be mainly MSW (Municipal solid waste) approx. 561kg/day, biomedical waste from clinical building 99 kg/day. Components are being collected in separate bins. The disposal of recyclable and non-recyclable waste and Biomedical waste is being done through the government approved agency.

SN.	Description of module	NO. of Bed	Total Hospital waste per Bed and per Capita (kg/day)	Total Medical Waste (including Bio Medical Waste) (kg/day)	Bio Medical Waste (@15% of total Medical Waste)	BIO DEGRADABLE waste (in kg/day)	NON-BIO waste (in kg/day)
1	Patients Bed	300	Assumed @ 1.5 Kg/ beds	450			

2	visitors (OPD)	1050	Assumed @ 0.200 Kg/ day	210			
	Total			660	99	224	336.6

16. **Greenbelt development:** The site comprises of approx. 3456 sqm (28.3 % of total plot area) as a green belt. As per MoEF no. of trees are required for development of Greenbelt area is 155 nos. Provision for plantation shall be given at the rate of minimum 1 tree per every 80 sq. mt. area covered under road and open space.

17. **Project cost:** 20. The estimated project cost is 118 Cr and cost for EMP is capital cost-240 Lakh Annually recurring cost 21.8 Lakh.

18. **Environment Consultant:** The Environment consultant **M/s Visiontek Consultant Services Private Limited, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee on 10.05.2024.

19. The SEAC in its meeting held on dated 10-05-2024 recommended the following:

A. The proponent may be asked to submit the following for further processing of EC application:

- a) Submit the approval letter from BMC for the previous plan and proposed expansion plan.
- b) Comprehensive note on construction already carried out and expansion proposed thereof.
- c) Permission for water usage from IDCO/Water Resources Department.
- d) Submit the land-use break-up plan
- e) Permission from AERB for provision of radioactive treatment facility.
- f) Revisit the parking area details provided in % of total built up area as per norms, in form of ECS, provision for separate staff parking and visitors parking. Total area statement for stilt & ground/open parking.
- g) Submit traffic study vetted by institution of repute.
- h) Permission for storm water and excess treated sewage water discharge to IDCO drain.
- i) Structural stability report for the expansion project.
- j) Detailed layout w.r.t. greenbelt, parking, rainwater harvesting, fire corridor, treatment facility provision.
- k) Land document & agreement with IDCO.

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

- viii) Environmental settings of the project site.
- ix) Verify if the site is a flood prone area.
- x) Construction activity if any started at the site and extent of construction activity.
- xi) Road connectivity to the project site.
- xii) Drainage network at the site.

xiii) Discharge point for discharge of treated water and distance of the discharge point from the project site.

xiv) Site visit regarding the layout of basement and boundary wall, distance left for recharge pits and greenbelt space from basement and boundary wall.

xv) Any other issues including local issues.

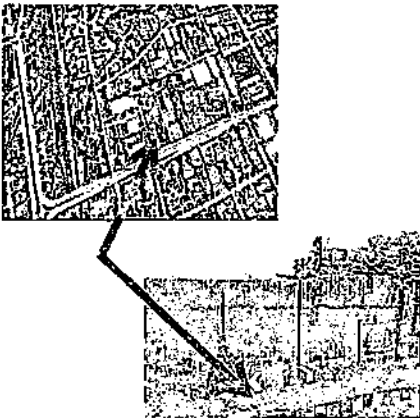
20. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent			Views of SEAC
1.	Submit the approval letter from BMC for the previous plan and proposed expansion plan.	<p>BMC Approval Letter for Previous: letter no. 26534, Bhubaneswar, dated 21/09/2019, FILE NO. MBP/BMC-02-0102/2018. Attached as Annexure-(a-1).</p> <p>Receiving letter of Submission for Approval of Expansion plan: letter no. IDCO-Mswar/2023-24/001 on dated 15th December 2023. Attached as Annexure-(a-2)</p>			<p>BMC approval letter for previous construction has been attached as Annexure-(a-1).</p> <p>However, the Annexure-(a-2) is the request letter submitted to Chief Town Planner-Special planning Authority for approval of the expansion proposal.</p>
2.	Comprehensive note on construction already carried out and expansion proposed thereof.	Description	As per Previous approved building plan	As per Proposed (Existing+ Expansion) building plan	<p>Annexure-b (1) attached is the Undertaking from Design Architect. However, it for a basement area of 4700sqm in contrast to the present basement area of 7089sqm.</p>
		TOTAL PLOT AREA	12224 sqm	12224 sqm	
		Plot no and Khata No.	IDCO Drawing Plot No- 126 corresponding to Revenue Plot No- 5052(P), 5054(P), 5050(P), 5051 (P), 5049(P), 4964(P), 5056(P), 4965(P), Khata No- 1030, 864, 987, 1000, 1027, 141, 1015 in Mouza- Gadakana, Industrial Estate, Mancheswar under Bhubaneswar Municipal Corporation.	IDCO Drawing Plot No- 126 corresponding to Revenue Plot No- 5052(P), 5054(P), 5050(P), 5051 (P), 5049(P), 4964(P), 5056(P), 4965(P), Khata No- 1030, 864, 987, 1000, 1027, 141, 1015 in Mouza- Gadakana, Industrial Estate, Mancheswar under Bhubaneswar Municipal Corporation.	
		TOTAL BUILT-UP AREA	14729.50 sqm	24924.18 Sqm	
		Configuration of Building	B+GROUND +1 Basement	B+GROUND +7 Basement	

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC																											
		<table border="1"> <tr> <td data-bbox="595 197 772 533"></td> <td data-bbox="772 197 949 533">Floor Area - 7586.16 sqm Ground Floor Area -4113.54 sqm First Floor - 3029.80 SQM FAR-0.58</td> <td data-bbox="949 197 1147 533">Floor Area - 6138.85 sqm Ground to Second Floor area -2669.74 sqm (Typical Floor area) 3rd to Seventh -2117.7 sqm (Typical Floor area) FAR-1.99</td> </tr> <tr> <td data-bbox="595 533 772 584">Height of the Building</td> <td data-bbox="772 533 949 584">7.80 Mtr</td> <td data-bbox="949 533 1147 584">30 Mtr</td> </tr> <tr> <td data-bbox="595 584 772 622">No. of BED</td> <td data-bbox="772 584 949 622">NA</td> <td data-bbox="949 584 1147 622">300</td> </tr> <tr> <td data-bbox="595 622 772 660">Parking area</td> <td data-bbox="772 622 949 660">7030.74 sqm</td> <td data-bbox="949 622 1147 660">7189.31</td> </tr> </table> <table border="1"> <thead> <tr> <th data-bbox="595 674 772 925">Description</th> <th data-bbox="772 674 949 925">Constructed area as per as per Previous approved building plan</th> <th data-bbox="949 674 1147 925">Will be constructed carried out as per Proposed (Existing+ Expansion) building plan</th> </tr> </thead> <tbody> <tr> <td data-bbox="595 925 772 981">TOTAL PLOT AREA</td> <td data-bbox="772 925 949 981">12224 sqm</td> <td data-bbox="949 925 1147 981">12224 sqm</td> </tr> <tr> <td data-bbox="595 981 772 1066">TOTAL BUILT -UP AREA</td> <td data-bbox="772 981 949 1066">14729.50 sqm</td> <td data-bbox="949 981 1147 1066">24924.18 Sqm</td> </tr> <tr> <td data-bbox="595 1066 772 1122">Configuration of Building</td> <td data-bbox="772 1066 949 1122"></td> <td data-bbox="949 1066 1147 1122"></td> </tr> <tr> <td data-bbox="595 1122 772 1178">Height of the Building</td> <td data-bbox="772 1122 949 1178">7.80 Mtr</td> <td data-bbox="949 1122 1147 1178">30 Mtr</td> </tr> </tbody> </table> <p data-bbox="595 1178 1147 1630">It is to certify that vide letter No. 26534, Bhubaneswar, dated 21/09/2019, FILE NO. MBP/BMC-02-0102/2018 of Bhubaneswar Municipal Corporation, Bhubaneswar (copy enclosed) a total BUA 14729.50 sqm has been allowed. Considering to the permission, 7089sqm had taken up at the basement i.e. Raft flooring and few columns in the year 2019, and that is within the permission limit of BMC's above dated order. Undertaking from Design Architect is attached as Annexure - b (1).</p>		Floor Area - 7586.16 sqm Ground Floor Area -4113.54 sqm First Floor - 3029.80 SQM FAR-0.58	Floor Area - 6138.85 sqm Ground to Second Floor area -2669.74 sqm (Typical Floor area) 3 rd to Seventh -2117.7 sqm (Typical Floor area) FAR-1.99	Height of the Building	7.80 Mtr	30 Mtr	No. of BED	NA	300	Parking area	7030.74 sqm	7189.31	Description	Constructed area as per as per Previous approved building plan	Will be constructed carried out as per Proposed (Existing+ Expansion) building plan	TOTAL PLOT AREA	12224 sqm	12224 sqm	TOTAL BUILT -UP AREA	14729.50 sqm	24924.18 Sqm	Configuration of Building			Height of the Building	7.80 Mtr	30 Mtr	
	Floor Area - 7586.16 sqm Ground Floor Area -4113.54 sqm First Floor - 3029.80 SQM FAR-0.58	Floor Area - 6138.85 sqm Ground to Second Floor area -2669.74 sqm (Typical Floor area) 3 rd to Seventh -2117.7 sqm (Typical Floor area) FAR-1.99																												
Height of the Building	7.80 Mtr	30 Mtr																												
No. of BED	NA	300																												
Parking area	7030.74 sqm	7189.31																												
Description	Constructed area as per as per Previous approved building plan	Will be constructed carried out as per Proposed (Existing+ Expansion) building plan																												
TOTAL PLOT AREA	12224 sqm	12224 sqm																												
TOTAL BUILT -UP AREA	14729.50 sqm	24924.18 Sqm																												
Configuration of Building																														
Height of the Building	7.80 Mtr	30 Mtr																												
3.	Permission for water usage from IDCO/Water Resources Department.	<p data-bbox="595 1630 1147 1697">Municipality water supply/IDCO Supply/Ground water</p> <p data-bbox="595 1697 1147 1794">1. For IDCO Supply: Agreement with IDCO is attached as Annexure – C - (1)</p> <p data-bbox="595 1794 1147 1977">IDCO has an agreement with Sparsh Optimum which states that: - The lessee shall pay maintenance charges to the lessor for maintenance of all common amenities like roads, public health works, drainage, sewerage disposal</p>	<p data-bbox="1163 1630 1474 1794">They have attached the Ground water NOC from CGWA for ground water extraction as Annexure-C-(2).</p> <p data-bbox="1163 1794 1474 1977">However, in the lease deed attached as Annexure-C-(1) does not contain any information regarding</p>																											

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC																																
		<p>system etc. in respect of the property in the industrial estate, as decided by IDCO from time to time.</p> <p>The lessee (Sparsh Optimum Healthcare Pvt. Ltd.) already paid all charges for consumption of electricity, water etc./ground water etc. directly to the concerned authorities (IDCO).</p> <p>2. Ground water supply: - NOC From CGWA for Ground water Received vide NOC No.: CGWA/NOC/INF/ORIG/2022/14376 Valid from 20/01/2022 to 19/01/2027. Ground water NOC is attached as Annexure-C-(2)</p>	Permission for water usage from IDCO/Water Resources Department																																
4.	Submit the land-use break-up plan	<table border="1"> <thead> <tr> <th>SL. NO</th> <th>LANDUSE</th> <th>SQM</th> <th>% of total plot area</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Ground Coverage Area</td> <td>2697.15</td> <td>22.1</td> </tr> <tr> <td>2</td> <td>Internal Road</td> <td>2329.16</td> <td>19.1</td> </tr> <tr> <td>3</td> <td>Paved Area</td> <td>1080.75</td> <td>8.8</td> </tr> <tr> <td>4</td> <td>Green Belt Area</td> <td>3456.06</td> <td>28.3</td> </tr> <tr> <td>5</td> <td>Open Parking on ground</td> <td>1769.61</td> <td>14.5</td> </tr> <tr> <td>6</td> <td>Other Services Area</td> <td>891.50</td> <td>7.3</td> </tr> <tr> <td colspan="2">Total</td> <td>12224.23</td> <td>100.00</td> </tr> </tbody> </table>	SL. NO	LANDUSE	SQM	% of total plot area	1	Ground Coverage Area	2697.15	22.1	2	Internal Road	2329.16	19.1	3	Paved Area	1080.75	8.8	4	Green Belt Area	3456.06	28.3	5	Open Parking on ground	1769.61	14.5	6	Other Services Area	891.50	7.3	Total		12224.23	100.00	Submitted.
SL. NO	LANDUSE	SQM	% of total plot area																																
1	Ground Coverage Area	2697.15	22.1																																
2	Internal Road	2329.16	19.1																																
3	Paved Area	1080.75	8.8																																
4	Green Belt Area	3456.06	28.3																																
5	Open Parking on ground	1769.61	14.5																																
6	Other Services Area	891.50	7.3																																
Total		12224.23	100.00																																
5.	Permission from AERB for provision of radioactive treatment facility.	Permission from AERB for provision of radioactive treatment facility is attached as Annexure- E (1).	Submitted.																																
6.	Revisit the parking area details provided in % of total built up area as per norms, in form of ECS, provision for separate staff parking and visitors parking. Total area statement for stilt & ground/open parking.	<p>Parking Calculation</p> <p>With ref. to Odisha Gazette for housing and urban Devp. Dept. (Table 9) Hospital campus falls under Sr.No.3(institutional projects)</p> <p>Req. Parking Area 30% of total Consumed F.S.I.</p> <p>Total Consumed F.S.I 23935.33</p>	The parking area has been calculated for 30% of total built up area. as per Odisha by laws.																																

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC																																																																																																					
		<table border="1"> <tr> <td>Req. Parking</td> <td>7,180.60</td> </tr> <tr> <td>Total Parking in basement</td> <td>2053.2</td> </tr> <tr> <td>Total Parking in Ground</td> <td>5136.11</td> </tr> <tr> <td>Total Parking Provided</td> <td>7189.31</td> </tr> <tr> <td>Description</td> <td>No. Of Area</td> </tr> <tr> <td>4-wheeler parking</td> <td>95 Basement</td> </tr> <tr> <td>4-wheeler parking</td> <td>300 Ground Floor</td> </tr> <tr> <td>2-wheeler parking</td> <td>105 Basement</td> </tr> <tr> <td>visitors parking</td> <td></td> </tr> <tr> <td>4-wheeler parking</td> <td>27 Ground Floor</td> </tr> <tr> <td>2-wheeler parking</td> <td>17 Ground Floor</td> </tr> </table> <p>Parking Management System We propose to install fully automated touch free parking management system with RFID readers, boom barriers, under body scanners, cameras, parking guidance displays, integrated payment collection. Parking Plan is attached as Annexure-F (1).</p> <table border="1"> <caption>Parking Calculation</caption> <tr> <td colspan="2">With ref. to Gubsha norms for housing and urban Devn. Dem. (Table 9) Horizontal campus lots under 52 No.3 (institutional projects)</td> </tr> <tr> <td>Req. Parking Area: 30% of total Computed P.S.I.</td> <td></td> </tr> <tr> <td>Total Computed P.S.I.</td> <td>23935.33</td> </tr> <tr> <td>Req. Parking</td> <td>7180.60</td> </tr> <tr> <td>Total Parking in basement</td> <td>2053.2</td> </tr> <tr> <td>Total Parking in Ground</td> <td>5136.11</td> </tr> <tr> <td>Total Parking Provided</td> <td>7189.31</td> </tr> </table> <table border="1"> <caption>Parking on basement floor level</caption> <thead> <tr> <th>Parking</th> <th>Vehical</th> <th>Type</th> <th>Area</th> <th>Parking Area</th> </tr> </thead> <tbody> <tr> <td>Parking-1</td> <td>Car</td> <td>Surface</td> <td>1426.5</td> <td>1426.5</td> </tr> <tr> <td>Parking-2</td> <td>Bike</td> <td>Surface</td> <td>522.5</td> <td>522.5</td> </tr> <tr> <td>Parking-3</td> <td>Bike</td> <td>Surface</td> <td>104.2</td> <td>104.2</td> </tr> <tr> <td colspan="3">Total Parking on basement floor level</td> <td></td> <td>2053.200</td> </tr> </tbody> </table> <table border="1"> <caption>Parking on basement floor level</caption> <thead> <tr> <th>Parking</th> <th>Vehical</th> <th>Type</th> <th>Area</th> <th>Parking Area</th> </tr> </thead> <tbody> <tr> <td>Multi-level Parking-1</td> <td>Car</td> <td>4 leveled</td> <td>480</td> <td>1,352.00</td> </tr> <tr> <td>Multi-level Parking-2</td> <td>Car</td> <td>4 leveled</td> <td>634.2</td> <td>2536.8</td> </tr> <tr> <td>Visitor Parking-1</td> <td>Car</td> <td>Surface</td> <td>157.3</td> <td>127.300</td> </tr> <tr> <td>Visitor Parking-2</td> <td>Car</td> <td>Surface</td> <td>145</td> <td>245.000</td> </tr> <tr> <td>Visitor Parking-3</td> <td>Car</td> <td>Surface</td> <td>142.1</td> <td>142.10</td> </tr> <tr> <td>Visitor Parking-4</td> <td>Car/Bike</td> <td>Surface</td> <td>102.91</td> <td>102.91</td> </tr> <tr> <td colspan="3">Total Parking on basement floor level</td> <td></td> <td>2053.110</td> </tr> </tbody> </table> <p>Adequate provision of 7189.31 sqm (95% of total FAR Area as per ODA planning standards) will be kept for car vehicles parking at the Basement as well as ground surface parking purpose. The parking detail for the project is given in the Conceptual Plan.</p>	Req. Parking	7,180.60	Total Parking in basement	2053.2	Total Parking in Ground	5136.11	Total Parking Provided	7189.31	Description	No. Of Area	4-wheeler parking	95 Basement	4-wheeler parking	300 Ground Floor	2-wheeler parking	105 Basement	visitors parking		4-wheeler parking	27 Ground Floor	2-wheeler parking	17 Ground Floor	With ref. to Gubsha norms for housing and urban Devn. Dem. (Table 9) Horizontal campus lots under 52 No.3 (institutional projects)		Req. Parking Area: 30% of total Computed P.S.I.		Total Computed P.S.I.	23935.33	Req. Parking	7180.60	Total Parking in basement	2053.2	Total Parking in Ground	5136.11	Total Parking Provided	7189.31	Parking	Vehical	Type	Area	Parking Area	Parking-1	Car	Surface	1426.5	1426.5	Parking-2	Bike	Surface	522.5	522.5	Parking-3	Bike	Surface	104.2	104.2	Total Parking on basement floor level				2053.200	Parking	Vehical	Type	Area	Parking Area	Multi-level Parking-1	Car	4 leveled	480	1,352.00	Multi-level Parking-2	Car	4 leveled	634.2	2536.8	Visitor Parking-1	Car	Surface	157.3	127.300	Visitor Parking-2	Car	Surface	145	245.000	Visitor Parking-3	Car	Surface	142.1	142.10	Visitor Parking-4	Car/Bike	Surface	102.91	102.91	Total Parking on basement floor level				2053.110	
Req. Parking	7,180.60																																																																																																							
Total Parking in basement	2053.2																																																																																																							
Total Parking in Ground	5136.11																																																																																																							
Total Parking Provided	7189.31																																																																																																							
Description	No. Of Area																																																																																																							
4-wheeler parking	95 Basement																																																																																																							
4-wheeler parking	300 Ground Floor																																																																																																							
2-wheeler parking	105 Basement																																																																																																							
visitors parking																																																																																																								
4-wheeler parking	27 Ground Floor																																																																																																							
2-wheeler parking	17 Ground Floor																																																																																																							
With ref. to Gubsha norms for housing and urban Devn. Dem. (Table 9) Horizontal campus lots under 52 No.3 (institutional projects)																																																																																																								
Req. Parking Area: 30% of total Computed P.S.I.																																																																																																								
Total Computed P.S.I.	23935.33																																																																																																							
Req. Parking	7180.60																																																																																																							
Total Parking in basement	2053.2																																																																																																							
Total Parking in Ground	5136.11																																																																																																							
Total Parking Provided	7189.31																																																																																																							
Parking	Vehical	Type	Area	Parking Area																																																																																																				
Parking-1	Car	Surface	1426.5	1426.5																																																																																																				
Parking-2	Bike	Surface	522.5	522.5																																																																																																				
Parking-3	Bike	Surface	104.2	104.2																																																																																																				
Total Parking on basement floor level				2053.200																																																																																																				
Parking	Vehical	Type	Area	Parking Area																																																																																																				
Multi-level Parking-1	Car	4 leveled	480	1,352.00																																																																																																				
Multi-level Parking-2	Car	4 leveled	634.2	2536.8																																																																																																				
Visitor Parking-1	Car	Surface	157.3	127.300																																																																																																				
Visitor Parking-2	Car	Surface	145	245.000																																																																																																				
Visitor Parking-3	Car	Surface	142.1	142.10																																																																																																				
Visitor Parking-4	Car/Bike	Surface	102.91	102.91																																																																																																				
Total Parking on basement floor level				2053.110																																																																																																				
7.	Submit traffic study vetted by institution of repute.	Traffic study Report is attached as Annexure-G (1)	They have submitted the traffic study report. However, Traffic study report has not been vetted.																																																																																																					

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
8.	Permission for storm water and excess treated sewage water discharge to IDCO drain.	<p>1. The proponent has the necessary maintenance charges to maintenance of all amenities like roads, public health works, drainage, sewerage disposal system etc. in respect of the property in the industrial estate, as decided by IDCO from time to time.</p> <p>The lessee (Sparsh Optimum Healthcare Pvt. Ltd.) already paid all charges for consumption of electricity, water etc./ground water etc. directly to the concerned authorities (IDCO).</p> <p>1. Agreement with IDCO is attached as Annexure-C-(1)</p> <p>DRAINAGE NETWORK</p> 	Submitted.
9.	Structural stability report for the expansion project.	Structural stability Certificate is attached as Annexure-I-(1).	Submitted.
10.	Detailed layout w.r.t. greenbelt, parking, rainwater harvesting, fire corridor, treatment facility provision.	Layout plan with greenbelt is attached as Annexure-J-(1), parking in Annexure- J-(2), Rainwater harvesting in Annexure- J-(3), Fire corridor in Annexure- J-(4) Firefighting arrangement in proposed hospital will be based on Fire recommendation approved by Fire officer & treatment facility provision in Annexure- J-(5).	Submitted. However, Firefighting recommendation for the proposed expansion has been applied attached as Annexure- J-(5).
11.	Land document & agreement with IDCO.	Land document & agreement with IDCO attached as Annexure-K-(1).	Submitted.

21. The proposed site was visited by the sub-committee of SEAC on 08.06.2024. Following are the observations of the sub-committee.

- a) The site is allotted by IDCO as informed by PP; hence infrastructures are available.
- b) There is part construction observed up to ground level as per previous approval.

- c) The land is connected with road and other infrastructures.
- d) PP was advised to submit the following:
 - i) A certificate by BDA empanelled Architect with regard to construction actually done.
 - ii) Relevant documents signed with IDCO for infrastructure provision.
 - iii) Copy of old approval.
 - iv) Traffic study after vetting by a reputed institute.
 - v) Plan for disposal of hospital wastes.
- e) PP should take permission from the authority for management of radioactive waste if any
- f) All other points asked during presentation to be complied.

22. The SEAC in its meeting held on dated **25-07-2024** decided to take the decision on the proposal after receipt of the following from the proponent as raised during site visit. 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.	A certificate by BDA empanelled Architect with regard to construction actually done.	It is to certify that vide letter No. 26534, Bhubaneswar, dated 21/09/2024, File No. MBP/BMC-02-0102/2018 of Bhubaneswar Municipal Corporation, Bhubaneswar (copy enclosed) a total BUA 14729.50 sqm has been allowed in favour of the project. Considering to the permission, 4700 sqm had taken up at the basement i.e., Raft flooring and few columns in the year 2019 and that is within the permission limit of BMC's above dated order. Undertaking from Design Architect is attached as Annexure- A.
2.	Relevant documents signed with IDCO for infrastructure provision.	For IDCO Supply: Agreement with IDCO is attached as Annexure-B The lessee shall pay maintenance charges to the lesser for maintenance of all common amenities like roads, public health works, drainage, sewerage disposal system etc, in respect of the property in the industrial estate, as decided by IDCO from time to time. The lessee (Sparsh Optimum Healthcare Pvt. Ltd.) already paid all charges for consumption of electricity, water etc./ ground water etc. directly to the concerned authorities (IDCO).
3.	Copy of old approval.	BMC Approval Letter for Previous letter no. 26534, Bhubaneswar, dated 21/09/2019, FILE NO. MBP/BMC-02-0102/2018. Attached as Annexure-C.
4.	Traffic study after vetting by a reputed institute.	Traffic study report vetted by a reputed institute is attached as Annexure – D.
5.	Plan for disposal of hospital wastes.	Safe handling and disposal of the bio medical waste will be facilitated to authorized Bio-waste recyclers approved by OSPCB. We ensure that an agreement will be signed with authorized bio-waste recyclers before the hospital starts operating. Disposal of solid waste other than bio-medical waste in accordance with the provisions of respective waste

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		management rules made under the relevant laws and amended from time to time and take all necessary steps to ensure that bio-medical waste is handled without any adverse effect to human health and the environment and in accordance with these rules.
6.	PP should take permission from the authority for management of radioactive waste if any	In Radiotherapy department, in the Linear Accelerator (LINAC) facility, we do not use radioactivity sources. For Brach therapy, the radioactive sources used are returned to the vendor after use. The vendor is responsible for the disposal of these used sources. So, in the Radiotherapy Dept., no Radioactive waste is generated. In the Nuclear Medicine Dept., we use short-lived isotopes such as Iodine-131 (I-131) and Fluorine-18 (F-18) for diagnostic and therapeutic purposes. The radioactive waste generated can be discharged into the general sewage system after being stored in a delay tank for a period specified by regulatory guidelines. This storage period is usually sufficient to ensure that the waste is at a safe level before discharge. Separate permission for waste disposal is not required as long as the conditions specified in the licenses for operating the nuclear medicine facility are satisfied. However, we will ensure to adhere to the guidelines as per the provision of AERB.
7.	The permission from Bhubaneswar Municipal Corporation, Bhubaneswar issued vide Memo No. 26535 dated 21 st September 2019, submitted along with ADS, is for discharge of rainwater to the public drain. Similar permission for discharging excess treated water effluent also needs to be obtained.	IDCO has an agreement with Sparsh Optimum which states that: The lessee shall pay maintenance charges to the lesser for maintenance of all common amenities like roads, public health works, drainage, sewerage disposal system etc, in respect of the property in the industrial estate, as decided by IDCO from time to time. The lessee (Sparsh Optimum Helathcare Pvt Ltd.) already paid all charges for consumption of electricity, water etc./ground water etc., directly to the concerned authorities (IDCO). 1. Agreement with IDCO is attached as Annexure-E.

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

- i) There is no drain connecting to the site, hence the PP shall ensure to maintain ZLD in the project premises.
- ii) The PP needs to have sufficient recharge pit to store rain water.
- iii) The proponent shall operate STP and ETP separately as standalone system and both shall not be inter-connected. ETP outlet effluent shall not be discharged to outside the project premises i.e. "zero discharge" from ETP to outside the premises shall be maintained.

- iv) The proponent shall make agreement with nearby Common Bio-Medical Waste Treatment Facility having incinerator facilities for disposal of infectious waste, organic waste and health hazardous wastes.
- v) The Decongestion plan as given by the proponent in the traffic density study report shall be implemented for compliance with a definite time frame.
- vi) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.
- vii) The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess STP treated water to the nearest drain without which the Proponent will not start construction work. Also, in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.
- viii) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.
- ix) The proponent shall obtain permission from concerned Fire Safety Authority.
- x) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- xi) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- xii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
- xiii) The PP will not commence construction unless the drain lay out is finalized and permission given for the same by the authority to discharge excess treated water & storm water.
- xiv) Before starting the construction project physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.
- xv) All the relevant permissions for handling of radioactive material should be obtained beforehand and safe disposal of such materials shall be ensured as per rules and guidelines applicable.
- xvi) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

ITEM NO. 07

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S BARBIL HOSPITAL AND RESEARCH FOUNDATION FOR CONSTRUCTION OF 200 BEDED MULTI SPECIALITY HOSPITAL OVER AN BUILT-UP AREA 32282.16 SQ.M AT: SUNDARA, TAHASIL-BARBIL, DIST: KEONJHAR OF SRI PRADIPTA MOHAPATRA – EC

1. This proposal is for Environmental Clearance of M/s Barbil Hospital and Research Foundation for Construction of 200 Beded Multi speciality Hospital over a built-up area 32282.16 Sq.m at: Sundara, Tahasil- Barbil, Dist: Keonjhar of Sri Pradipta Mohapatra.

2. **Category:** As per the EIA notification 2006, and its subsequent amendments, proposed project falls in category B under schedule of Item 8(b)- Township and Area Development Projects.
3. **Location and connectivity:** The proposed project is located at plot No. – 436/554/1094 under holding No – 1/5 of village Sundara – 12 of Barbil Tahasil, District Keonjhar. The total plot area meant for construction of 200 bedded hospital will be established over an area of 4.000 Acres. The project site is at a distance of 1.18 km from Jindal Road and connected to SH 10B at distance 0.15Km. Topo Sheet No. – F45H8. Kissam – Gharabari. Site coordinates of the proposed project is as follows:

Points	Latitude	Longitude
A	22° 5'41.60"N	85°22'37.24"E
B	22° 5'46.09"N	85°22'36.87"E
C	22° 5'46.22"N	85°22'40.72"E
D	22° 5'41.60"N	85°22'41.28"E

4. The site is coming under Special Planning Authority, Barbil.
5. The total plot area is 16080.00 Sq.mt. /1.608 Ha. /4.00 Ac. With total Built-up Area 28143.63 sq.mt.
6. **The Building Area Details of the project in tabulation form –**

PLOT AREA	16080.00 sqm	173085.12 sqft.	
	BUILT UP AREA	F.A.R AREA	PARKING
HOSPITAL			
LG FLOOR	4534.26 sqm	819.30 sqm	3075.94 sqm
GROUND FLOOR	4146.43 sqm	4031.43 sqm	0 sqm
FIRST FLOOR	3436.96 sqm	3309.70 sqm	0 sqm
SECOND FLOOR	3533.90 sqm	3426.04 sqm	0 sqm
THIRD FLOOR	3569.34 sqm	3464.73 sqm	0 sqm
CUMILATIVE TOTAL	19220.89 sqm	15051.20 sqm	3075.94 sqm
HOSTEL			
GROUND FLOOR	1345.25 sqm	261.33 sqm	1062.59 sqm
FIRST FLOOR	1249.76 sqm	1209.12 sqm	0 sqm
SECOND FLOOR	1249.76 sqm	1209.12 sqm	0 sqm
THIRD FLOOR	1249.76 sqm	1209.12 sqm	0 sqm
FOURTH FLOOR	1249.76 sqm	1209.12 sqm	0 sqm
FIFTH FLOOR	1249.76 sqm	1209.12 sqm	0 sqm
SIXTH FLOOR	1249.76 sqm	1209.12 sqm	0 sqm
CUMILATIVE TOTAL	8843.81 sqm	7516.050 sqm	1062.59 sqm
	BUILT UP AREA	FAR AREA	PARKING
HOSPITAL	19220.89 sqm	15051.20 sqm	3075.94 sqm
HOSTEL	8843.81 sqm	7516.05 sqm	1062.59 sqm
SECURITY, ICT, PUBLIC	78.93 sqm	68.93 sqm	N/A
TOTAL	28143.63 sqm	22636.18 sqm	4138.53 sqm

7. **Water Requirement:** During the operation phase total water requirement will be 1,23,000 liters per day. Water will be sourced from ground water through bore wells. Permission from ground water board will be taken for withdrawal of ground water. Out of the total water requirement of 123 KLD, 71.34 KLD (58%) of fresh water, which will be met through borewell for drinking, washing and other domestic purpose. 51.56 KLD (42%) of water will be made available from treated wastewater for HVAC makeup and gardening purpose. Wastewater generated will be treated in STP of total 200 KLD and ETP of 20 KLD capacities. Treated wastewater will be recycled for gardening, DG cooling & HVAC.
8. **Power Requirement:** The society has estimated the requirement of power connection of 1630 KVA to meets its electricity need for its proposed hospital. For the power load, the society's management has decided to apply with the state DISCOM before starting the commercial operation in the hospital. The company has planned two transformers of 2x 1250 KVA and for power backup, one silent DG set of 2 x 1010 KVA is proposed to be installed as laid down in the agreement.
9. **Rainwater Harvesting:**

Calculation for Obtaining Maximum Run Off						
Sl No	Area Description	Toal Area In Hectare	Rain Fall In mm/Hr	Run off Co-Efficient	Maximum Runoff In m ³ /Hr	
A	Terrace Area (Roof top)	0.4818	120	0.90	520.34	m ³ /Hr
B	Road/Paved Area	0.8207	120	0.75	738.63	m ³ /Hr
C	Green Area	0.1822	120	0.20	43.72	m ³ /Hr
Total Runoff in all area					1302.69	m³/Hr
Total Runoff need to be harvested by deducting Evaporation loss @ 10%					117.42	m³/Hr
Calculation for requirement of No. of Recharge Pit						
Capacity of Recharge Pit/Tank assuming 15 minutes of rain fall of peak Intensity (As per Rain Water Harvesting and Utilization in India by unhabitat.org)					241.67	m ³ /15 minutes
Volume of Each Recharge Pit (2 x 2 x 3) Cum					12	Cum
Total No of Recharge Pits Required to be constructed					20	Nos
No of recharge pits provided					25	Nos

10. **Parking Requirement:** The parking details are as below:

Parking Zone	Area in Sq.m
Covered Parking	4183.39
Open Parking	3300.25
Total	7483.64 Sq.m

11. **Fire Fighting Installations:** The following are the type of fire protection systems envisaged for the building premises considering the height of the proposed Hostel block under "Institutional Buildings (C), Table 7, of National Building code – 2016, Part-4"

Hospital Block

Sl. No	TYPE OF INSTALLATION	REQUIRED / NOT REQUIRED
1	Fire Extinguisher	Required

2	Hose Reel	Required
3	Wet riser	Required
4	Down-Comer	Not Required
5	Yard Hydrant	Required
6	Automatic Sprinkler System	Required
7	Manually Operated Electric Fire Alarm System	Required
8	Automatic Detection and Alarm System	Required
9	Lift Well Pressurization	Provided
10	Staircase Pressurization	Provided
	Water Supply In Liters	
9	Underground Static Water Storage tank	1,50,000 Lts
10	Terrace Tank	20,000 Lts
	PUMP CAPACITY(L/MIN)	
11	Pump Near Underground Static water Storage tank(Fire Pump)with Minimum pressure of 3.5kg/cm ² at Terrace level	Provide required number of sets of pumps each consisting of two electric and one diesel pump (stand by) of capacity 2 280 liter/min and Jockey pump of capacity 180 liter/min One set of pumps shall be provided for each 100 hydrants or part thereof, with a maximum of two sets. In case of more than one pump set installation, both pump sets shall be interconnected at their delivery headers. Alternative to provisions of additional set of pumps, the objective can be met by providing additional diesel pump of the same capacity and doubling the water tank capacity as required for one set of pumps.

Residence Block:

Sl. No.	System	Required as per NBC 2016	Provided
1	Fire Extinguisher	R	Provided as per Norms
2	Hose Reel	R	Provided as per Norms
3	Wet Riser	NR	Provided as per Norms
4	Down Comer	R	Not Provided
5	Yard Hydrant	NR	Not Provided
6	Sprinkler	NR	Not Provided
7	U.G Tank	NR	Not Provided

8	O.H Tank	25 KL	25 KL
9	Pump Near U.G Tank	NR	Not Provided
10	Pump at Terrace	1 No Electric pumps @ 900 LPM	1 No Electric pumps @ 900 LPM

12. Green Belt Development: Green belt will be developed over an area of 1822.00 sq.m which is 11.3% of the total plot area. Total no. saplings to be planted are 450.

13. Solid Waste Management: Quantity of biomedical waste produced / day is 700 Kg / Day. Other Domestic waste from Hostel is 0.4 Kg/ Person/ Day. The Bio medical waste generated will be collected, segregated and disposed as per Biomedical waste management rule, 2016. Quantity of domestic waste to be generated is 240 Kg/ Day. The domestic waste will be disposed through Barbil Municipal Council.

14. Project Cost: The estimated project cost is- Rs. 99.31 Crores. Cost for EMP includes Capital Cost of Rs. 95.0 (in Lakhs) and Recurring Cost – Rs. 27.0 (in Lakhs).

15. Environment Consultant: The Environment consultant M/s Kalyani Laboratories Pvt. Ltd., Bhubaneswar along with the proponent made a presentation on the proposal before the Committee on 04.06.2024.

16. The SEAC in its meeting held on dated **04-06-2024** recommended the following:

A. The proponent may be asked to submit the following for further processing of EC application:

- a) Supporting Documents /certificate regarding the experience/expertise in Health care sector related to construction of hospital projects.
- b) Copy of permission for drainage from the concerned authority.
- c) Rectify the discrepancy in the built-up area figures in various online submitted documents.
- d) Increase the greenbelt upto 20% of total plot area.
- e) Layout of approach road, drainage, water discharge, various infrastructure developments permitted by IDCO along with supporting documents. Further a detailed structure of the proposal that will be developed by Project proponent.
- f) PP shall include Oil and Grease Trap in STP.
- g) PP shall include a biological treatment separately along with chemical treatment of waste water in ETP.
- h) Application copy for firefighting Clearance. Fire recommendations shall strictly be followed.
- i) Revisit the parking area calculation as per norms i.e. 40% of FAR for commercial projects.
- j) Supporting documents/MoU with the organisation for disposal of wastes.
- k) The green area should be minimum 20% of the land area of the project site. Total ground coverage area including internal roads needs to be 40% maximum of the land area of the project site.
- l) Permission from Water Resources Dept. Odisha to be taken for use of

ground water.

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

- a) Environmental settings of the project site.
- b) Extent of construction activity and operational status of all the units.
- c) Road connectivity to the project site.
- d) Drainage network at the site.
- e) Greenbelt development in the existing plant.
- f) Solid waste management practice of the existing plant.
- g) Vacant land available.
- h) Any other issues including local issues.

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
1.	Supporting Documents /certificate regarding the experience/expertise in Health care sector related to construction of hospital projects.	This is an affordable Health care project under PPP moder which will be constructed and operated under Govt. of Odisha, Health and Family Welfare Department. The agreement has been made between the Health & Family Welfare department and the private partner Barbil Hospital and Research Foundation (A company formed by Utkal Health care Private Limited and Silicon Institute of Technology). One of the partners i.e. Utkal Health care Private Limited is a leading health care service provider in Odisha. In this regard war are submitting the letter from Health and Family welfare department along with the MoU of the company is attached as Annexure 1 .
2.	Copy of permission for drainage from the concerned authority.	This is the hospital project operating in PPP mode. The drainage network for the site will be developed by Barbil Municipal Corporation and this will be developed before the commencement of the project. Copy of the undertaking in this regard is attached as Annexure 2 .
3.	Rectify the discrepancy in the built-up area figures in various online submitted documents.	The proposed built-up area for the project is 28143.63 Sq. m. As we could not able to change the figures in the online submitted documents we are herewith submitting the copy of Brief summary for reference and final submission of built up area. Annexure 3
4.	Increase the greenbelt up to 20% of total plot area.	Proposed revised green belt area will be 2102.60 sq.m (20% of the plot area) and the revised plan is attached as Annexure 4
5.	Layout of approach road, drainage, water discharge, various infrastructure developments permitted by IDCO along with supporting documents. Further a detailed structure of the proposal that will be developed by Project proponent.	A detailed external infrastructure plan has been prepared and approved by Barbil Development Authority for approval. Copy of the drawing is attached for reference. Annexure 5 .

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
6.	PP shall include Oil and Grease Trap in STP.	Revised STP design with O&G trap is attached as Annexure 6 .
7.	PP shall include a biological treatment separately along with chemical treatment of waste water in ETP.	ETP proposed for the project involve both Biological and chemical treatment. MBBR process with microbial growth reduces BOD involve biological process of treatment. Chemical treatment process involve disinfection, chlorination and passing through ACF to the treated effluent storage tank. Copy of revised ETP design attached as Annexure 7 .
8.	Application copy for firefighting Clearance. Fire recommendations shall strictly be followed.	Copy of NOC for firefighting is attached as Annexure 8 .
9.	Revisit the parking area calculation as per norms i.e. 40% of FAR for commercial projects.	As per ODA norms parking requirement for hospital project is 30 % of FAR. Copy of the document is attached as Annexure 9 , We have provided total parking area of 6798 Sq.m which is 30% of the FAR (FAR area is 22636.18 sqm).
10.	Supporting documents/MoU with the organisation for disposal of wastes.	The project will generate about 700 kg/day of Biomedical waste which will be collected, segregated and disposed as per Biomedical waste management Rule 2016. We hereby undertake that we will dispose the waste as per the rule and do the necessary MOU with authorized agency before the operation of the medical project. Copy of the undertaking attached Annexure 10
11.	The green area should be minimum 20% of the land area of the project site. Total ground coverage area including internal roads needs to be 40% maximum of the land area of the project site.	The green belt has been revised and revised layout plan showing green belt is given in Annexure 4 . For the proposed project ground coverage will be 33.43 % of the land area. The layout plan attached as Annexure 4 .
12.	Permission from Water Resources Deptt., Odisha to be taken for use of ground water.	The project has already obtained NOC for ground water withdrawal of 9.5 KLD from CGWA. This water will be used for domestic purpose during the construction period. Copy of the document attached as Annexure 11 . Further we are submitting the undertaking that we will permission from the concerned authority for withdrawal of surface/ ground water before the commencement of the project. Annexure 12 .

18. The SEAC in its meeting held on 31-08-2024 decided to take the decision on the proposal after a site visit by sub-committee of SEAC.

19. The proposed site was visited by the sub-committee of SEAC on 11.09.2024. Following are the observations of the sub-committee:

The team was accompanied by Sri Abhishek Mishra, Project Manager, Barbil Hospital and Research Foundation; and Sri Paramesh Jena, Technical Manager, on behalf of the consultant M/s Kalyani Laboratories Pvt Ltd.

The site is located close to the Barbil – Bolani Road. The site is surrounded by a multipurpose indoor stadium on the north, Odisha Mining Adarsh Vidyalaya on East and

South (under construction). There are a few habitats close to the western boundary of the project. There is no vacant land nearby.

The site is connected to the Barbil-Bolani Road and as per the project proponent a 16m permanent road is proposed to be constructed by Barbil Municipality.

The project proponent has proposed to construct a 200 KLD STP and 20KLD ETP and the site has been earmarked near the eastern boundary of the project. There will be no discharge of water outside the project area. There should be no interconnection of the STP and the ETP. 25 no of recharge pits of 12m³ capacity (2 x 2 x 3 m³) is proposed to be constructed within the project site. The PP has also made provisions in the plan to connect to the municipality drain in future if and when it is developed to discharge the storm water runoff during monsoon.

The PP proposed to manage the biomedical wastes through an approved third party. The PP proposes to put separate dust bins for collection of dry and wet solid wastes within the residential areas which will be then handed over to the municipality authorities.


As per the clarification submitted by the PP the green belt area is proposed to be increased from 1822m² (11.3%) to 2102.60m² (20%). During the presentation as well as in the report it was stated to plant 450 saplings within the project site. However, it appears unrealistic. A suitable decision may be taken by the committee in this regard.

Provision of electricity connection and borehole for water has been completed by the PP.

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

- i) There is no drain connecting to the site, hence the PP shall ensure to maintain ZLD in the project premises.
- ii) The PP needs to have sufficient recharge pit to store rain water.
- iii) The proponent shall operate STP and ETP separately as standalone system and both shall not be inter-connected. ETP outlet effluent shall not be discharged to outside the project premises i.e. "zero discharge" from ETP to outside the premises shall be maintained.
- iv) The proponent shall make agreement with nearby Common Bio-Medical Waste Treatment Facility having incinerator facilities for disposal of infectious waste, organic waste and health hazardous wastes.
- v) The Decongestion plan as given by the proponent in the traffic density study report shall be implemented for compliance with a definite time frame.
- vi) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.
- vii) The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess STP treated water to the nearest drain without which the Proponent will not start construction work. Also, in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.

- viii) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.
- ix) The proponent shall obtain permission from concerned Fire Safety Authority.
- x) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- xi) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- xii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
- xiii) The PP will not commence construction unless the drain lay out is finalized and permission given for the same by the authority to discharge excess treated water & storm water.
- xiv) Before starting the construction project physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.
- xv) The PP shall obtain the required permission from concerned authority for drawing ground water to meet its operational requirement, discharge of storm water along with excess treated sewage water along with completion of all necessary formalities for obtaining unhindered ground access to connect the drainage point of the project site to the nearest public drain.
- xvi) The PP shall obtain permission from the appropriate authority for use of required ground water during its operation phase.
- xvii) In case, any radioactive material is used at any time then PP should take all the permissions and safeguards for safe handling and disposal etc.
- xviii) 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

Proceedings of SEAC meeting held on 20.09.2024

Page 55 of 55


Environmental Scientist, SEAC

projects requiring Environmental Clearance shall be complied with.


Environmental Scientist, SEAC

Page 1 of 9

2. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
3. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM₁₀ and PM_{2.5}) covering upwind and downwind directions during the construction period.
4. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
5. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
6. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
7. Wet jet shall be provided for grinding and stone cutting.
8. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
9. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.
10. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
11. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
12. For indoor air quality the ventilation provisions as per National Building Code of India.

Jwajak
Environmental Scientist, SEAC

III. Water quality monitoring and preservation

1. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other Sustainable Urban Drainage Systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.
2. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
3. Total fresh water use shall not exceed the proposed requirement as provided in the project details.
4. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC, Bhubaneswar along with six monthly Monitoring reports.
5. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
6. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
7. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
8. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
9. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
10. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
11. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.

J Nayak
Environmental Scientist, SEAC

12. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
13. All recharge should be limited to shallow aquifer.
14. No ground water shall be used during construction phase of the project.
15. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.
16. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC, Bhubaneswar along with six monthly Monitoring reports.
17. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.
18. No sewage or untreated effluent water would be discharged through storm water drains.
19. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.
20. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
21. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

IV. Noise monitoring and prevention

1. Ambient noise levels shall conform to residential area/commercial area/industrial area/silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

J Nayak
Environmental Scientist, SEAC

2. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
3. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures

1. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.
2. Outdoor and common area lighting shall be LED.
3. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
4. Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
5. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 3-5% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.
6. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

VI. Waste Management

1. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.
2. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
3. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.

J Nayak
Environmental Scientist, SEAC

4. Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with adequate capacity must be installed.
5. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
6. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
7. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.
8. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016., Ready mixed concrete must be used in building construction.
9. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
10. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

VII. Green Cover

1. No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).
2. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.
3. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.
4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

Trayak
Environmental Scientist, SEAC

VIII. Transport

1. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
 - a) Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - b) Traffic calming measures.
 - c) Proper design of entry and exit points.
 - d) Parking norms as per local regulation.
2. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
3. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

IX. Human health issues

1. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
2. For indoor air quality the ventilation provisions as per National Building Code of India.
3. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
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, creche 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.
6. A First Aid Room shall be provided in the project both during construction and operations of the project.

X. Corporate Environment Responsibility

1. The project proponent shall comply with the provisions contained in this Ministry's OM

J Nayak
Environmental Scientist, SEAC

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 shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF & CC as a part of six-monthly report.
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 Ministry/Regional Office along with the Six-Monthly Compliance Report.

XI. Miscellaneous

1. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.
2. 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.
3. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
4. 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.
5. 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.
6. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities,

J Nayak
Environmental Scientist, SEAC

- commencing the land development work and start of production operation by the project.
7. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
 8. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF & CC).
 9. 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.
 10. The SEIAA, Odisha may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
 11. The SEIAA, Odisha reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
 12. The Regional Office, MoEF&CC, Bhubaneswar 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.
 13. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
 14. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

J Nayak
Environmental Scientist, SEAC

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S ODISHA KHADI AND VILLAGE INDUSTRIES BOARD FOR PROPOSED COMMERCIAL PROJECT "UNITY MALL" OVER TOTAL BUILT-UP AREA - 22079.46 M² LOCATED AT MOUZA -BHUBANESWAR SAHAR, UNIT NO - 22, BHIMPUR, BHUBANESWAR, DIST - KHORDHA OF SRI SANJAY KUMAR MISHRA - EC

PART A - SPECIFIC CONDITIONS:

1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc. as per National Building Code including protection measures from lightening etc.
3. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
4. The project proponent shall ensure that the guidelines for building and construction projects issued vide this Ministry's OM NO.19-2/2013-IA.III dated 9th June, 2015, are followed to ensure sustainable environmental management.
5. The proponent shall obtain prior clearance from the Standing Committee of the National Board for Wild Life if the project will be located within any Eco-Sensitive Zone of Wild Life Sanctuary.

TOPOGRAPHY AND NATURAL DRAINAGE

6. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape and other Sustainable Urban Drainage Systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
7. The permission from competent authority will be obtained to discharge the excess storm water to drain if any. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially.
8. Permission for construction of drain alongside the adjacent NH under construction for allowing the proponent to discharge the treated waste water as well excess runoff water during monsoon from NH Authority shall be obtained. The construction of drains shall be synchronized with the completion of the construction of the Housing Project.

WATER REQUIREMENT, CONSERVATION, RAIN WATER HARVESTING, AND GROUND WATER RECHARGE

9. As proposed, fresh water requirement from ground water shall not exceed 35 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring

Sanjay
Environmental Scientist, SEAC

- that there is no impact on other users.
11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
 12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
 13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
 14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
 15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
 16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of 02 nos. shall be provided.
 17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.
 18. The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

SOLID WASTE MANAGEMENT

19. The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
20. Disposal of muck during construction phase shall not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
21. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
22. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
23. A certificate from the competent authority handling municipal solid wastes, indicating the

existing civic capacities of handling and their adequacy to cater to the Municipal Solid Waste generated from project shall be obtained.

SEWAGE TREATMENT PLANT

24. Sewage shall be treated in STP of capacity 60 KLD. The treated effluent from STP shall be reused for flushing, landscaping, floor & car washing.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

32. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
33. Energy conservation measures like installation of CFLs / LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.

34. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 5% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher. Follow super ECBC requirement of ECBC 2017 and provide compliance report.
35. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.
36. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
37. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.

AIR QUALITY AND NOISE

38. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, morram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, morram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
39. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
40. **Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.**
41. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

42. For indoor air quality the ventilation provisions as per National Building Code of India shall be provided.
43. Ambient noise levels shall conform to residential standard both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 3663 sqm which is 22.5% of the plot area shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

45. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

TRANSPORT

46. A comprehensive mobility plan, as per Ministry of Urban Development best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation
47. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project.
48. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
49. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

50. A dedicated entry/exit and parking shall be provided for commercial activities.
51. Barricades shall be provided around project boundary.
52. Speed of the vehicles shall be restricted upto 15 kmph by erecting speed bumps at regular intervals at project site and proper signage shall be provided for guided vehicular movement and speed restrictions.
53. Parking shall be prohibited on the access road to the proposed project site.
54. Footpath shall be seamless with sufficient width.
55. No vehicles shall be allowed to stop and stand in front of the gate on main access.
56. A buffer of minimum 10 m shall be maintained between the entry/exit gate and the road to avoid traffic congestion.
57. The Traffic Management Plan prepared by the proponent shall be duly validated and certified by the State Concerned Competent Authority and shall have also their consent before implementation.

ENVIRONMENT MANAGEMENT PLAN

58. An Environmental Management Plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. A dedicated Environment Monitoring Cell with defined functions and responsibility shall be put in place to implement the EMP. The environmental cell shall ensure that the environment infrastructure like Sewage Treatment Plant, Landscaping, Rain Water Harvesting, Energy efficiency and conservation, water efficiency and conservation, solid waste management, renewable energy etc. are kept operational and meet the required standards. The environmental cell shall also keep the record of environment monitoring and those related to the environment infrastructure.

OTHERS

59. Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
60. A First Aid Room shall be provided in the project both during construction and operations of the project.
61. The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.
62. As per the MoEF&CC, Govt. of India Office Memorandum F.No.22-65/2017-IA.III dated 1st May 2018, the project proponent is required to prepare and implement Corporate Environment Responsibility (CER) Plan. As per para 6(II) of the said O.M. appropriate funds shall be earmarked for the activities such as infrastructure creation for drinking water supply, sanitation, health, education, skill development, roads, cross drains, electrification including solar power, solid waste management facilities, scientific support and awareness to local farmers to increase yield of crop and fodder, rain water harvesting, soil moisture conservation works, avenue plantation, plantation in community areas etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire

activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

PART B – GENERAL CONDITIONS

1. A copy of the Environmental Clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.
2. The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to the SEIAA, Odisha and MoEF&CC, Govt. of India and its concerned Regional Office.
3. Officials from the Regional Office of MoEF&CC, Bhubaneswar who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection.
4. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEIAA, Odisha.
5. The SEIAA, Odisha reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
6. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
7. These stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and the EIA Notification, 2006.
8. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the SEIAA, Odisha. The advertisement shall be made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the Regional Office of MoEF&CC, Bhubaneswar.
9. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
10. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The

J Nayak
Environmental Scientist, SEAC

clearance letter shall also be put on the website of the company by the proponent.

11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
12. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC, Govt. of India by E-mail.

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S ROYALE HOTELS PVT. LTD. FOR PROPOSED (B1+B2+G+15) STORIED BUILDING FOR IT PARK CUM FOOD COURT (AT CHANDAKA INDUSTRIAL ESTATE, LOCATED AT MOUZA - CHANDRASEKHARPUR, BHUBANESWAR, DIST- KHURDA, ODISHA - EC

PART A - SPECIFIC CONDITIONS:

1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc. as per National Building Code including protection measures from lightening etc.
3. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
4. The project proponent shall ensure that the guidelines for building and construction projects issued vide this Ministry's OM NO.19-2/2013-IA.III dated 9th June, 2015, are followed to ensure sustainable environmental management.
5. The proponent shall obtain prior clearance from the Standing Committee of the National Board for Wild Life if the project will be located within any Eco-Sensitive Zone of Wild Life Sanctuary.

TOPOGRAPHY AND NATURAL DRAINAGE

6. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape and other Sustainable Urban Drainage Systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
7. The permission from competent authority will be obtained to discharge the excess storm water to drain if any. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially.
8. Permission for construction of drain alongside the adjacent NH under construction for allowing the proponent to discharge the treated waste water as well excess runoff water during monsoon from NH Authority shall be obtained. The construction of drains shall be synchronized with the completion of the construction of the Housing Project.

WATER REQUIREMENT, CONSERVATION, RAIN WATER HARVESTING, AND GROUND WATER RECHARGE

9. As proposed, fresh water requirement from ground water shall not exceed 142.3KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring

J Nayak
Environmental Scientist, SEAC

that there is no impact on other users.

11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of 16 nos. shall be provided.
17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.
18. The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

SOLID WASTE MANAGEMENT

19. The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
20. Disposal of muck during construction phase shall not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
21. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
22. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
23. A certificate from the competent authority handling municipal solid wastes, indicating the

existing civic capacities of handling and their adequacy to cater to the Municipal Solid Waste generated from project shall be obtained.

SEWAGE TREATMENT PLANT

24. Sewage shall be treated in STP of capacity 200 KLD. The treated effluent from STP shall be reused for flushing, landscaping, floor & car washing.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

32. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
33. Energy conservation measures like installation of CFLs / LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.

T. Nayak
Environmental Scientist, SEAC

34. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 5% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher. Follow super ECBC requirement of ECBC 2017 and provide compliance report.
35. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.
36. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
37. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.

AIR QUALITY AND NOISE

38. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, morram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, morram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
39. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
40. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
41. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

42. For indoor air quality the ventilation provisions as per National Building Code of India shall be provided.
43. Ambient noise levels shall conform to residential standard both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 1661.36 sqm (21.5% of total plot area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

45. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

TRANSPORT

46. A comprehensive mobility plan, as per Ministry of Urban Development best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation
47. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project.
48. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
49. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

50. A dedicated entry/exit and parking shall be provided for commercial activities.
51. Barricades shall be provided around project boundary.
52. Speed of the vehicles shall be restricted upto 15 kmph by erecting speed bumps at regular intervals at project site and proper signage shall be provided for guided vehicular movement and speed restrictions.
53. Parking shall be prohibited on the access road to the proposed project site.
54. Footpath shall be seamless with sufficient width.
55. No vehicles shall be allowed to stop and stand in front of the gate on main access.
56. A buffer of minimum 10 m shall be maintained between the entry/exit gate and the road to avoid traffic congestion.
57. The Traffic Management Plan prepared by the proponent shall be duly validated and certified by the State Concerned Competent Authority and shall have also their consent before implementation.

ENVIRONMENT MANAGEMENT PLAN

58. An Environmental Management Plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. A dedicated Environment Monitoring Cell with defined functions and responsibility shall be put in place to implement the EMP. The environmental cell shall ensure that the environment infrastructure like Sewage Treatment Plant, Landscaping, Rain Water Harvesting, Energy efficiency and conservation, water efficiency and conservation, solid waste management, renewable energy etc. are kept operational and meet the required standards. The environmental cell shall also keep the record of environment monitoring and those related to the environment infrastructure.

OTHERS

59. Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
60. A First Aid Room shall be provided in the project both during construction and operations of the project.
61. The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.
62. As per the MoEF&CC, Govt. of India Office Memorandum F.No.22-65/2017-IA.III dated 1st May 2018, the project proponent is required to prepare and implement Corporate Environment Responsibility (CER) Plan. As per para 6(II) of the said O.M. appropriate funds shall be earmarked for the activities such as infrastructure creation for drinking water supply, sanitation, health, education, skill development, roads, cross drains, electrification including solar power, solid waste management facilities, scientific support and awareness to local farmers to increase yield of crop and fodder, rain water harvesting, soil moisture conservation works, avenue plantation, plantation in community areas etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire

activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

PART B – GENERAL CONDITIONS

1. A copy of the Environmental Clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.
2. The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to the SEIAA, Odisha and MoEF&CC, Govt. of India and its concerned Regional Office.
3. Officials from the Regional Office of MoEF&CC, Bhubaneswar who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection.
4. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEIAA, Odisha.
5. The SEIAA, Odisha reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
6. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
7. These stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and the EIA Notification, 2006.
8. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the SEIAA, Odisha. The advertisement shall be made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the Regional Office of MoEF&CC, Bhubaneswar.
9. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
10. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The

Jwalak
Environmental Scientist, SEAC

clearance letter shall also be put on the website of the company by the proponent.

11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
12. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC, Govt. of India by E-mail.

TERMS OF REFERENCE (ToR) FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT FOR M/S MAA BHAGWATI RE-ROLLING MILLS PVT. LTD FOR REGULARIZATION OF RE-ROLLING MILL PLANT OF 60000 TPA (ROADS, ANGELS, FLATS, BARS & PATTI) AND GALVANIZATION UNIT OF 30000 TPA CAPACITY, IN COMPLIANCE TO THE MOEF&CC NOTIFICATION DATED 20TH JULY 2022 OVER AN AREA 2.2 ACRES (0.89 HECT.) AT VILLAGE RATAKHANDI, PO: BISRA, DIST: SUNDERGARH OF SRI RAJESH KUMAR RAJUKA – TOR

STANDARD TERMS OF REFERENCE (TOR):

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

J. Nayak
Environmental Scientist, SEAC

Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing existing 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. Land use 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. Land use 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-à-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

J Nayak
Environmental Scientist, SEAC

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
- iii. 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-rail 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
- vi. 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.
- vii. 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
- ix. 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 analysed 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 health 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.


 Environmental Scientist, SEAC

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.

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR EXPANSION OF "SPARSH OPTIMUM HEALTHCARE PRIVATE LIMITED" WITHIN THE PREMISES OF PREVIOUS LAND AREA - 12224.23 SQM, OVER IDCO DRAWING PLOT NO - 126 CORRESPONDING TO REVENUE PLOT NO - 5052(P), 5054(P), 5050(P), 5051 (P), 5049(P), 4964(P), 5056(P), 4965(P), KHATA NO - 1030, 864, 987, 1000, 1027, 141, 1015 IN MOUZA - GADAKANA, MANCHESWAR INDUSTRIAL ESTATE, UNDER BHUBANESWAR MUNICIPAL CORPORATION OF SRI SAUMENDRA NARAYAN MISHRA - EC

PART A - SPECIFIC CONDITIONS:

1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc. as per National Building Code including protection measures from lightening etc.
3. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
4. The project proponent shall ensure that the guidelines for building and construction projects issued vide this Ministry's OM NO.19-2/2013-IA.III dated 9th June, 2015, are followed to ensure sustainable environmental management.
5. The proponent shall obtain prior clearance from the Standing Committee of the National Board for Wild Life if the project will be located within any Eco-Sensitive Zone of Wild Life Sanctuary.

TOPOGRAPHY AND NATURAL DRAINAGE

6. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape and other Sustainable Urban Drainage Systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
7. The permission from competent authority will be obtained to discharge the excess storm water to drain if any. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially.
8. Permission for construction of drain alongside the adjacent NH under construction for allowing the proponent to discharge the treated waste water as well excess runoff water during monsoon from NH Authority shall be obtained. The construction of drains shall be synchronized with the completion of the construction of the Housing Project.

WATER REQUIREMENT, CONSERVATION, RAIN WATER HARVESTING, AND GROUND WATER RECHARGE

9. As proposed, fresh water requirement from ground water shall not exceed 171 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total

annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of 68 nos. shall be provided.
17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.
18. The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

SOLID WASTE MANAGEMENT

19. The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
20. Disposal of muck during construction phase shall not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
21. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
22. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

23. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the Municipal Solid Waste generated from project shall be obtained.

SEWAGE TREATMENT PLANT

24. Sewage shall be treated in STP of capacity 200 KLD. The treated effluent from STP shall be reused for flushing, landscaping, floor & car washing.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

32. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
33. Energy conservation measures like installation of CFLs / LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.

J Nayak
Environmental Scientist, SEAC

34. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 5% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher. Follow super ECBC requirement of ECBC 2017 and provide compliance report.
35. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.
36. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
37. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.

AIR QUALITY AND NOISE

38. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, morram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, morram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
39. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
40. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
41. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

42. For indoor air quality the ventilation provisions as per National Building Code of India shall be provided.
43. Ambient noise levels shall conform to residential standard both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 3456.06 sqm (28.3% of total plot area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

45. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

TRANSPORT

46. A comprehensive mobility plan, as per Ministry of Urban Development best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation
47. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project.
48. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
49. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

50. A dedicated entry/exit and parking shall be provided for commercial activities.
51. Barricades shall be provided around project boundary.
52. Speed of the vehicles shall be restricted upto 15 kmph by erecting speed bumps at regular intervals at project site and proper signage shall be provided for guided vehicular movement and speed restrictions.
53. Parking shall be prohibited on the access road to the proposed project site.
54. Footpath shall be seamless with sufficient width.
55. No vehicles shall be allowed to stop and stand in front of the gate on main access.
56. A buffer of minimum 10 m shall be maintained between the entry/exit gate and the road to avoid traffic congestion.
57. The Traffic Management Plan prepared by the proponent shall be duly validated and certified by the State Concerned Competent Authority and shall have also their consent before implementation.

ENVIRONMENT MANAGEMENT PLAN

58. An Environmental Management Plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. A dedicated Environment Monitoring Cell with defined functions and responsibility shall be put in place to implement the EMP. The environmental cell shall ensure that the environment infrastructure like Sewage Treatment Plant, Landscaping, Rain Water Harvesting, Energy efficiency and conservation, water efficiency and conservation, solid waste management, renewable energy etc. are kept operational and meet the required standards. The environmental cell shall also keep the record of environment monitoring and those related to the environment infrastructure.


OTHERS

59. Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
60. A First Aid Room shall be provided in the project both during construction and operations of the project.
61. The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.
62. As per the MoEF&CC, Govt. of India Office Memorandum F.No.22-65/2017-IA.III dated 1st May 2018, the project proponent is required to prepare and implement Corporate Environment Responsibility (CER) Plan. As per para 6(II) of the said O.M. appropriate funds shall be earmarked for the activities such as infrastructure creation for drinking water supply, sanitation, health, education, skill development, roads, cross drains, electrification including solar power, solid waste management facilities, scientific support and awareness to local farmers to increase yield of crop and fodder, rain water harvesting, soil moisture conservation works, avenue plantation, plantation in community areas etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire

activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

PART B – GENERAL CONDITIONS

1. A copy of the Environmental Clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.
2. The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to the SEIAA, Odisha and MoEF&CC, Govt. of India and its concerned Regional Office.
3. Officials from the Regional Office of MoEF&CC, Bhubaneswar who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection.
4. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEIAA, Odisha.
5. The SEIAA, Odisha reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
6. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
7. These stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and the EIA Notification, 2006.
8. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the SEIAA, Odisha. The advertisement shall be made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the Regional Office of MoEF&CC, Bhubaneswar.
9. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
10. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The


Environmental Scientist, SEAC

- clearance letter shall also be put on the website of the company by the proponent.
11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
 12. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC, Govt. of India by E-mail.

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S BARBIL HOSPITAL AND RESEARCH FOUNDATION FOR CONSTRUCTION OF 200 BEDED MULTI SPECIALITY HOSPITAL OVER AN BUILT-UP AREA 32282.16 SQ.M AT: SUNDARA, TAHASIL- BARBIL, DIST: KEONJHAR OF SRI PRADIPTA MOHAPATRA - EC

PART A - SPECIFIC CONDITIONS:

1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc. as per National Building Code including protection measures from lightning etc.
3. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
4. The project proponent shall ensure that the guidelines for building and construction projects issued vide this Ministry's OM NO.19-2/2013-IA.III dated 9th June, 2015, are followed to ensure sustainable environmental management.
5. The proponent shall obtain prior clearance from the Standing Committee of the National Board for Wild Life if the project will be located within any Eco-Sensitive Zone of Wild Life Sanctuary.

TOPOGRAPHY AND NATURAL DRAINAGE

6. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape and other Sustainable Urban Drainage Systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
7. The permission from competent authority will be obtained to discharge the excess storm water to drain if any. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially.
8. Permission for construction of drain alongside the adjacent NH under construction for allowing the proponent to discharge the treated waste water as well excess runoff water during monsoon from NH Authority shall be obtained. The construction of drains shall be synchronized with the completion of the construction of the Housing Project.

WATER REQUIREMENT, CONSERVATION, RAIN WATER HARVESTING, AND GROUND WATER RECHARGE

9. As proposed, fresh water requirement from ground water shall not exceed 71.34 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring

- that there is no impact on other users.
11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
 12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
 13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
 14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
 15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
 16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of 25 nos. shall be provided.
 17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.
 18. The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

SOLID WASTE MANAGEMENT

19. The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
20. Disposal of muck during construction phase shall not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
21. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
22. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
23. A certificate from the competent authority handling municipal solid wastes, indicating the

existing civic capacities of handling and their adequacy to cater to the Municipal Solid Waste generated from project shall be obtained.

SEWAGE TREATMENT PLANT

24. Sewage shall be treated in STP of capacity 200KLD. The treated effluent from STP shall be reused for flushing, landscaping, floor & car washing.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

32. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
33. Energy conservation measures like installation of CFLs / LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.

34. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 5% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher. Follow super ECBC requirement of ECBC 2017 and provide compliance report.
35. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.
36. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
37. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.

AIR QUALITY AND NOISE

38. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, morram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, morram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
39. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
40. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
41. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

42. For indoor air quality the ventilation provisions as per National Building Code of India shall be provided.
43. Ambient noise levels shall conform to residential standard both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 2102.60sqm (20% of total plot area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

45. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

TRANSPORT

46. A comprehensive mobility plan, as per Ministry of Urban Development best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation
47. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project.
48. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
49. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

50. A dedicated entry/exit and parking shall be provided for commercial activities.
51. Barricades shall be provided around project boundary.
52. Speed of the vehicles shall be restricted upto 15 kmph by erecting speed bumps at regular intervals at project site and proper signage shall be provided for guided vehicular movement and speed restrictions.
53. Parking shall be prohibited on the access road to the proposed project site.
54. Footpath shall be seamless with sufficient width.
55. No vehicles shall be allowed to stop and stand in front of the gate on main access.
56. A buffer of minimum 10 m shall be maintained between the entry/exit gate and the road to avoid traffic congestion.
57. The Traffic Management Plan prepared by the proponent shall be duly validated and certified by the State Concerned Competent Authority and shall have also their consent before implementation.

ENVIRONMENT MANAGEMENT PLAN

58. An Environmental Management Plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. A dedicated Environment Monitoring Cell with defined functions and responsibility shall be put in place to implement the EMP. The environmental cell shall ensure that the environment infrastructure like Sewage Treatment Plant, Landscaping, Rain Water Harvesting, Energy efficiency and conservation, water efficiency and conservation, solid waste management, renewable energy etc. are kept operational and meet the required standards. The environmental cell shall also keep the record of environment monitoring and those related to the environment infrastructure.

OTHERS

59. Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
60. A First Aid Room shall be provided in the project both during construction and operations of the project.
61. The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.
62. As per the MoEF&CC, Govt. of India Office Memorandum F.No.22-65/2017-IA.III dated 1st May 2018, the project proponent is required to prepare and implement Corporate Environment Responsibility (CER) Plan. As per para 6(II) of the said O.M. appropriate funds shall be earmarked for the activities such as infrastructure creation for drinking water supply, sanitation, health, education, skill development, roads, cross drains, electrification including solar power, solid waste management facilities, scientific support and awareness to local farmers to increase yield of crop and fodder, rain water harvesting, soil moisture conservation works, avenue plantation, plantation in community areas etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire

activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

PART B – GENERAL CONDITIONS

1. A copy of the Environmental Clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.
2. The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to the SEIAA, Odisha and MoEF&CC, Govt. of India and its concerned Regional Office.
3. Officials from the Regional Office of MoEF&CC, Bhubaneswar who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection.
4. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEIAA, Odisha.
5. The SEIAA, Odisha reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
6. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
7. These stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and the EIA Notification, 2006.
8. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the SEIAA, Odisha. The advertisement shall be made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the Regional Office of MoEF&CC, Bhubaneswar.
9. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
10. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The

clearance letter shall also be put on the website of the company by the proponent.

11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
12. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC, Govt. of India by E-mail.