

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL
COMMITTEE, ODISHA HELD ON 20TH JULY, 2019**

The SEAC met on 20th July, 2019 at 11:00 AM in the Conference Hall of Odisha State Pollution Control Board, Bhubaneswar under the Chairmanship of Sri B. P. Singh. The following members were present in the meeting.

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| 1. Sri. B. P. Singh | - | Chairman |
| 2. Dr. D. Swain | - | Member |
| 3. Prof.(Dr.) P.K. Mohanty | - | Member |
| 4. Sri. J. K. Mohapatra | - | Member |
| 5. Sri. K. R. Acharya | - | Member |
| 6. Prof.(Dr.) B.K. Satpathy | - | Member |
| 7. Dr. Sailabala Padhi | - | Member |
| 8. Dr. K.C.S Panigrahi | - | Member |

Dr. A.K. Swar, Chief Env. Engineer, State Pollution Control Board, Odisha, Bhubaneswar was invited as expert for participation in the discussion for the proposal of Common Hazardous Waste Treatment, Storage and Disposal Facility (CHWTSDF). The agenda-wise proceedings and recommendations of the Committee are detailed below:

ITEM NO. 1

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF CHROME ORE BENEFICIATION PLANT OVER AN MINING LEASE AREA OF 1.254 HA. WITH 15,000 TPA THROUGHPUT AT VILLAGE –BALIPOSI, PO- SUKINDA, DIST-JAJPUR OF M/S. INDIAN EAST COAST MINERALS OF SMT. RENUKA ROUT (EC)

1. The proposed project is for Environmental Clearance of chrome ore beneficiation unit with capacity 15000 TPA throughput of M/s Indian East Coast Minerals.
2. M/s Indian East Coast Minerals proposes to set-up, Chrome ore beneficiation plant over an area of 1.254Ha (3Acre 10 Decimals) at Vill: Baliposi, Po: Sukinda, Dist: Jajpur, Odisha. Promoter of the project is M/s Indian East Coast Mineral, Prop. Ms. Renuka Rout, W/o Sri Duryadhan Parida.
3. This project falls under Category “B”, Project or Activity ‘2 (b)’ as per EIA Notification dated 14th Sept., 2006 & its subsequent amendments.
4. ToR was issued by SEAC, Odisha, vide letter no. 680, dated 09.08.2018 for EIA study.
5. The proponent made an appeal to consider their project as Category-B2 as per MoEF&CC, Govt. of India O.M. No. J/13012/12/2013-IA-II(I), dated 24.12.2013 as throughput of Mineral Beneficiation activity is less than 20,000 TPA involving only physical beneficiation.
6. The MoEF&CC, Govt. of India O.M. No. J/13012/12/2013-IA-II(I), dated 24.12.2013 stipulates the Mineral Beneficiation activity listed in the schedule as Category-B will be treated as Category-B2 with throughput \leq 20,000 TPA, involving only physical beneficiation.

7. The SEAC, Odisha observed that the proposed Chrome Ore Beneficiation plant is having throughput 15,000 TPA involving only physical beneficiation. However, the Committee opined that the Chrome Ore Beneficiation plant is having significant environmental impact to the surrounding areas in terms of water pollution and tailing disposal and there is a need for detailed EIA study.
8. The SEAC, Odisha recommended to consider the project as Category-B2 as per MoEF&CC, Govt. of India O.M. No. J/13012/12/2013-IA-II(I), dated 24.12.2013 for exemption of public hearing. However, the Committee recommended to consider Environmental Clearance for the proposal after the proponent submits detailed EIA study report as per Terms of Reference issued by the SEAC vide letter no. 680, dated 09.08.2018.
9. The SEAC, Odisha vide letter No.1094/SEAC-144 on dated 14.12.2018 considered the project under B2 category with exemption of public hearing.
10. EIA/EMP study has been carried out as per the ToR issued by SEAC, Odisha, vide letter no. 680, dated 09.08.2018 and submitted the final EIA/EMP report for appraisal.
11. The project site will be located in Plot No:100/2978 & 100/2975(P) And Khata No:660/69 & 660/75, Kissam- Taila (non forest agricultural waste land) in village Baliposhi, P.O. Sukinda, P.S. Sukinda, Dist. Jajpur in state of Odisha. The geographical co-ordinate of the project lies in survey of India Toposheet No. 73H/13 with Latitude: 20°53'55.21"N & Longitude: 85°55'55.88"E.
12. The project is accessible through a 50 ft wide road which connects to Sukinda – Hatibari Road. NH – 200 is located at a distance of 7.5 Km from the project site. Nearest railway station is at Sukinda road located at a distance of 15 Km from the project site.
13. The proposed project involves beneficiation of low grade chrome ore having 26-40% of Cr₂O₃ to increase the chrome concentration more than 50%. There are two basic operations on the process of beneficiation. One is liberation of valuable minerals which is accomplished by crushing and grinding of lump ore & second one is separation of minerals and gangue (impurities) which is achieved by different physical properties of mineral and gangue. By this beneficiation process the low grade ore are converted into semi high grade ore having content >50% of Cr₂O₃, 3% of SiO₂ & 11% of Al₂O₃ with a minimum chromium iron ratio 2:7. The process mainly involves scrubbing, desliming and screening process. Thus, this Chrome Ore Beneficiation (COB) Plant to beneficiate low grade Chrome Ore (26-40% Cr₂O₃) of 15000 TPA to get chrome concentrate (Cr₂O₃ – 50% and above) of 9000TPA. Tailing of 6000 TPA will be generated as solid waste from beneficiation process.
14. The raw material linkage has been established for the proposed plant from M/s B.C. Mohanty Mines, Sukinda and from OMC Ltd. The raw material from sukinda will transport to the project site through 7Km of Sukinda – Hatibari road followed 1.2 Km of Jamudala village road and then connect to the project site through 150m of morrom road. The road for transportation is black topped road.

15. Total water requirement for the project will be 208 KLD which include beneficiation water requirement of 200 KLD. The makeup water requirement will be met from bore wells supply. The total makeup water requirement will be 10 KLD and unit has applied to CGWB for withdrawal of 9.5 KLD ground water.
16. From the chrome ore beneficiation plant tailing generation will be 20 TPD / 6000 TPA. The tailing generated will be settled in the tailing pond lined by HDPE (Depth – 7.5 m and area proposed : 3125 Sq.m) and the supernatant water from the tailing pond will treated through ETP of 300 KLD capacity and same shall be re-circulated to the plant for reuse. The ETP will help to oxidize Hexavalent chromium to Trivalent chromium. Retaining wall will be built around dump area to prevent access of the tailing water to discharge outside. There is proposal of selling of tailings to refractory brick manufacturing (M/s Ore & Process, Bangalore).
17. The baseline study was carried out during the period of March 2018 to May 2018 in the core and buffer zone (10 Km radius) of the project site. The baseline study includes micrometeorology, air quality, water quality, soil quality, noise level, flora and fauna & socio-economic status of the project and its buffer zone surrounding 10 Km radius of the proposed project site.
18. The green belt will be developed over an area of 1.023 acre (33% of the total plant area).
19. The project cost is 1.4 crores and 0.27 crores will be allocated for Environment Management (Capital), 0.08 crores will be allocated for EMP (Recurring per annum).
20. The study area within 10 Km of the project site is devoid of any national parks, sanctuaries, Biosphere reserves, wild life corridors, tiger/elephant reserves etc. There is no critically polluted area within 10 Km radius of the lease area.
21. A rain water harvesting pond will be constructed within the plant premises over an area of 1550 sq.m. The rain water replenishment will be done through the direct precipitation over the pond area. The rain water pond is maintained properly and is connected with pucca drain. Water storage in the rain water harvesting pond is 9300 cu.m/ Annum which will be utilized as make up water requirement for the beneficiation plant.
22. The Environment Consultant **M/s Kalyani Laboratories Pvt. Ltd., Bhubaneswar** along with the proponent made a detailed presentation on the proposal before the Committee.

Considering the information / documents furnished by the proponent and presentation made by the consultant, the SEAC decided to take decision on the proposal after the proponent submits the following information/ documents:

- a) Source of chromite ore and copy of agreement made with mine owners.
- b) Detailed to the scale plant layout map (in A1 size) with legend indicating location of the beneficiation plant, office building, rainwater harvesting pond, ETP, tailing pond, raw material storage yard and green area etc.
- c) Status of permission from Water Resources Department, Govt. of Odisha for drawal of Ground Water.

- d) Tailing pond design and specification along with tailing utilization plan.
- e) Study of cumulative effect on soil, air, water due to establishment of chrome ore beneficiation unit for 3 months.
- f) Distance of agricultural land from beneficiation unit.
- g) Details of existing units near to the Chrome Ore Beneficiation Plant.
- h) Study of Disaster Management for this new Chrome Ore Beneficiation unit.
- i) Re-calculation of average rainfall of Sukinda as figure given in the EIA report is not correct (Seasonal variation of Rainfall).
- j) Detailed proposal to adopt Zero Liquid Discharge (ZLD) concept.
- k) Source of waste water and details of Effluent Treatment Plant for treatment of waste water containing hexavalent chromium. Cost of ETP with breakup.
- l) Water balance diagram along with compensating water balance from rain harvesting pond.
- m) Mitigative measures to be taken for serious occupational health hazards due to hexavalent chromium.
- n) Detailed cost breakup towards pollution control measures for this Chrome Ore Beneficiation Plant.
- o) Revised amount to be spent on CSR activities i.e. 2% with proposed CSR activities in nearby villages.
- p) Undertaking to abandon the tailing ponds after the completion of 6 years.
- q) Surface runoff management and detailed treatment facility for surface runoff.
- r) Analysis result of surface and ground water and soil within study area w.r.t. hexavalent chromium.

ITEM NO. 2

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR ESTABLISHMENT OF COMMON HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITY (CHWTSDF) AT VILLAGE BANJARI, DIST-DEOGARH, ODISHA BY WESTERN INTEGRATED WASTE MANAGEMENT FACILITY PVT. LTD (EC).

1. The proposal is for Environmental Clearance for establishment of Common Hazardous Waste treatment, storage and disposal facility (CHWTSDF) at Village Banjari, Dist-Deogarh, Odisha by M/s. Western Integrated Waste Management facility Pvt. Ltd. M/s Western Integrated Waste Management Facility Pvt. Limited (WIWMFL), is a company incorporated under companies act, 1956 and promoted by M/s. SJ Environmental Solutions.
2. M/s. Western Integrated Waste Management facility Pvt. Ltd took active interest and approached Odisha Industrial Infrastructure Development Corporation and State Pollution Control Board to set up another TSDF in Western Odisha to cater the need of Western Odisha Industries.

3. As per EIA Notification dated 14th Sept, 2006, as amended from time to time; this project falls under Category “B”, Project or Activity 7 (d). (EIA Notification dated 14th Sep, 2006 as amended on 2009).
4. ToRs was issued vide letter no. 750/SEAC-145 dated 12.09.2018 by the SEAC Odisha for detailed EIA study. Public hearing was conducted on 24/01/2019.
5. With the present quantities of HW generated in the State of Odisha only one TSDF is operational. Moments study results showed that the ideal location to setup another TSDF is at Western Odisha as it has the lowest effective distance from the other operational CHWTSDF, Sukinda. Effective distance of transportation to CHWTSF, Sukinda to and from all the districts is 800 km. However due to site characteristics, the next best location is Deogarh Cluster. With the new initiatives of the Government of Odisha for rapid industrialization, the waste quantity is likely to grow up necessitating the establishment of Integrated Waste Management facility with provisions for Hazardous Waste Treatment, storage and disposal.
6. Different Type of Industries Existing in Sambalpur, Jharsuguda, Bolangir and neighbouring districts
 - Production of Aluminium, Mining, (Districts of Jharsuguda and Sambalpur)
 - Production of Iron and steel including other ferrous alloys, steel rolling etc. (Districts of Jharsuguda, Sambalpur, Sundergarh)
 - Power plants, Cement units (Districts of Bargarh,) Present in most of the districts
 - Production/industrial use of synthetic dyes intermediates and pigments.
 - Production of Refractory Bricks (Rajgangpur) and Rourkela.
 - Electro plating, Lead acid batteries recycling units.
 - Production, use and formulation of pesticides including stock-piles.
7. Odisha Industrial Infrastructure Development Corporation (IDCO) has allotted requisite plot of land of area 57 acres i.e. Plot No: 149, Kissam – Dunguri and converted to Patita located at Village Banjari in the District of Deogarh. The project is located a Latitude 21°31’11.70” North & Longitude 84°30’10.68” East. The proposed site is on the outskirts of the village Banjari (2 km) on the side of NH-6 (1.1 km) in Deogarh (18 km) District of Odisha. The area of plot is 161,874.40 sq.m (40 acres) for CHWTSDF. Nearest railway station is Rairakhol, 67.84 Km and nearest airport is Jharsuguda, 98km. The proposed site is 15 kms from Ushakothi wildlife sanctuary as certified by DFO through letter no: 390/dated 02.02.2019.
8. A greenbelt development plan will be prepared and implemented along with the project. Total green belt area shall be of 13.2 acres (33% of 40.0 acres). The main objective of the greenbelt is to provide a barrier between the plant and the surrounding areas.
9. The climate of Deogarh district is normal. May month is usually the hottest with daily maximum of 45°C. December is the coldest month with mean daily minimum of 7.5 °C. Overall, the climate of the district is neither hotter nor cooler. More than 75 percent of the

annual rainfall occurs during monsoon in the period from June to October. Average annual rainfall is 1014.5 mm

10. The total Capacity of the proposed project of secured landfill and stabilization treatment will be 50000 TPA (Direct landfill: 30000 TPA and Treatment/Stabilization: 20000 TPA). The Facility is located strategically at Deogarh District which is the Common Boundary of Industrial cluster like Jharsuguda, Sambalpur, Bolangir, Keonjhar, Sundergarh and Angul.
11. The project involves landfill in 40 acres area with volume of 125000 m³ over an area of 4.00 acres with 5 mts below ground and maximum 10 mts above ground filling. Considering average bulk density of 2 kg/m³, for 50,000 TPA, the landfill will be filled in 5 years period. For future expansion on 16 acres land, the operation will continue for another 20 years period. The total landfill is planned for total 25 years of operation after which it will be capped as per CPCB guidelines. It will be monitored for 30 more years post closure as per CPCB guidelines and records maintained according.
12. Water will be available from DMC (Deogarh Municipal Corporation) and maximum water consumption will be 20kl/day. The waste water will be treated and waste water will be used in greenbelt. Leachate and effluent from landfill will be treated in Effluent Treatment plant (ETP) and Solar evaporation pond (SEP).
13. During construction phase, the labours and workers will be hired from local village. The total manpower required in construction phase will be 100 and in operation phase will be 60.
14. The power requirement will be met through 420 KVA connecting loads of Western Electricity Supply Company, Odisha (WESCO). In case of power failure, D.G. Set shall be used (124 KVA capacity each) in Emergency only. HSD at rate of 3KL/Month will be used as fuel in D.G. set.
15. Baseline data was collected during March 2018 to May 2018.
16. The public hearing was conducted on 24/01/2019 with 400 people attending the meeting. The issues raised mainly are demand of employment to local people, Public welfare activities improvement in education, drinking water & health care facilities and locality protection of agriculture land.
17. The estimated cost of the Project is approximately ` 41.50 crores. Environment Cost for Implementation of EMP – ` 3.25 Crores
18. M/s Western Integrated Waste Management Facility Pvt. Limited shall be an important endeavour to mitigate the degradation of environment in the region. The Facility is designed to cater to over more than 200 industrial units within Western Odisha who are generating Hazardous waste.
19. The demand of infrastructure (Physical & Social) in nearby area of the proposed site will be developed under Entrepreneur Social Commitment programs. Development of amenities/facilities in nearby area of the proposed project site as per requirement of local people of the

nearby area shall be carried out under ESC programs for which funds allocated is ` 83 lakhs.

20. The proponent along with the consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar** made a detailed presentation before the SEAC.
21. The members of the Committee had received a petition (given in **Annexure-I**) from the villagers about the location of the Common Hazardous Waste Treatment, Storage and Disposal Facility (CHWTSDF) from Ushakothi Sanctuary, existence of the forest growth within the site and other pollution aspects. The Committee discussed about the merit of the petition and felt that adequate care has been proposed in EMP.
22. Tahasildar, Deogarh has issued a letter to Settlement Officer, Sambalpur for the status of the proposed land vide Letter No. 4106, dated 05.12.2018. Settlement Officer, Sambalpur has issued a letter no. 458 Dt.29.042019 to Tahasildar, Deogarh for furnishing the HAL status of the proposed plots of the above land stating that both the plots have NIL status of corresponding SABIK plots and HAL KISSAM is Dunguri. Tahasildar, Deogarh converted the above proposed land from Dunguri to Patita on Dt.18.05.2019 after issuing proclamation notice period/general public notification and based on the report of settlement officer. The Range Officer, Deogarh has made a joint verification report with Revenue Inspector and IDCO representatives on February 1st, 2019. In his report the proposed lease area is not coming under any VSS (Vana Samrakshyana Samiti).

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar**, the SEAC recommended for grant of Environmental Clearance for the project valid for a period of 7 years with stipulated conditions as per **Annexure – II**.

ITEM NO. 3

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR CONSTRUCTION OF (LB+UB+S+10) HOTEL-CUM-MULTIPLEX BUILDING PROJECT AT MOUZA – CHANDRASEKHARPUR, BHUBANESWAR OF M/S RISK SOFTWARE SOLUTION PVT. LTD. WITH TOTAL BUILT UP AREA 35,191.96 M² (EC).

1. M/s Risk Software Solution Pvt. Ltd. has applied for environmental clearance for construction of (LB+UB+S+10) Hotel-Cum-Multiplex building project at Mouza – Chandrasekharpur, Bhubaneswar of M/s Risk Software Solution Pvt. Ltd. with total built up area 35,191.96 m².
2. The project falls in item 8(a) of Building and construction project as per the EIA Notification, 2006 and 2009 and subsequent amendments theretof of MoEF & CC.
3. The Hotel Multiplex Building Project site is located at Village Mouza Chandrasekharpur, Bhubaneswar, District - Khorda. The Geographical co-ordinate of the project site is: Latitude - 20° 20' 34" N & Longitude - 85° 48' 51.9" E. The site is around 5 km from Centre of Bhubaneswar city. The site is well connected with road. The nearest railway station is

Bhubaneswar on SE Railway which is around 9 km. from the site and the nearest airport is Biju Patnaik Airport which is at distance of 10 Km. There is no stream passes through the project site.

4. The proposed project envisages construction of a multi-storied building with LB+UB+G+10 floors over IDCO Plot No.-7, Rev Plot No.65(P), 66(P), 67(P), Khata No. 612 at Mouza - Chandrasekharpur of Bhubaneswar, Dist – Khorda, Odisha. The maximum temperature is about 36.0° C and the minimum temperature is 16.0° C felt in the area. The average annual rainfall in the area is 1447.5 mm.
5. In this proposed multi storied project 'Hotel Cum Multiplex' consisting of 87 shops and 95 suites/rooms, multiplex in LB+UB+G+10 floors of the proposed commercial/ residential multiplex along with party lawn, party hall, lobby, food court, games area, ATM, Swimming pool, Spa, Salon, Gym, Restaurants, club and other common facilities.
6. The total plot area of project is estimated 8096.26 Sq.mt (2.0 acres) and built up area of 35942.14 Sq.mt. Maximum height of the building = 26m.

The detailed area statement is provided below in Table 1

(Table 1)

Sl. No.	Particulars	Area sq.mt
1.	Possession Plot Area	8096.26
2.	1 st Basement Area	6897.36
3.	Service Area	1988.05
4.	Parking Area	4909.31
5.	2 nd Basement Area	6906.45
4.	Service Area	1863.57
5.	Parking Area	5042.88
6.	Ground Floor Area	4262.99
7.	1 st Floor Area	3576.16
8.	2 nd Floor Area	3215.89
9.	3 rd Floor Area	4221.56
10.	4 th Floor Area	1989.66
11	5 th Floor Area	419.56
12	6 th Floor Area	1519.75
13	Typical Hotel Floor Area (5 nos) – 586.55 sqmt	2932.76
14	Total Floor Area	22138.33
15	Total Built up Area	35942.19
16	Total Parking Area	9952.19
17	Total FAR Area	22138.33
	FAR....2.73	
18	20% Plantation Area	1619.253
19	Maximum No. of Floor	5

Sl. No.	Particulars	Area sq.mt
20	Power/Electricity Requirement & Sources	Grid supply at 33KV
21	No. of DG sets	2 nos. of 820 kVA (1 X 500 + 1 X 320 kVA)
22	Water requirement & Sources	321 KLD
23	Sewage Treatment & Disposal	STP Capacity - 200 KLD
24	Estimated Population-Residential, Floating/visitors	2432

REQUIREMENT FOR THE PROJECT:

7. Power requirement: Power requirement for the project is approx. 1000 KW. 2 nos. transformers of 750 KVA each will be provided at the site. Source of power will be OSEB. 2nos. D.G. sets of total capacity 820 kVA (1 X 500 + 1 X 320 kVA) will be provided for power back up. Stacks will be provided with DG sets so as emissions can be discharged at app. 5 m.
8. Water Requirement: Fresh make up of 321 KLD will be required for the project which will be sourced from Ground water. NOC from CGWA has been obtained. Waste water of 181 KLD will be treated in a STP of 200 KLD capacity.
9. Rain water will be harvested annually approx. 7164 m³ of rainwater that will recharged to ground water system through 2 nos. of recharging structures.
10. Fire fighting Installations will be installed as per recommendation of the Fire fighting Officer, Odisha and as per the guideline of NBC (part-4). Fire NOC had been obtained.
11. Green Belt Development: Green belt will be developed over an area of 1619.253 sqm which is 20 % of the plot area; by using the local species like Radhachuda, Nageswar, Akash Neem, Ashok, Polanga, Karang, Bela, Pijilu, Kaniara, Tagar, Hena, etc.
12. Solid waste Management: Total solid waste generation is 491 kg/day. The solid waste will be segregated at source & collected. Adequate number of colored bins (green, blue & dark grey) separate for bio-degradable and non-biodegradable are proposed to be provided at the strategic location within site. An agency shall be appointed to collect and dispose the Organic and inorganic waste which shall be commencing the works at the time of operations. STP sludge is proposed to be used for horticultural purposes as a manure. Horticultural Waste is composted and used for gardening purposes. Recyclable wastes will be disposed to vendors.
13. The project cost is ` 35.00 crores. Environment management cost is ` 1.04 lakhs.
14. The project proponent along with the environment consultant **M/s Cognizance Research India Pvt. Ltd, Noida** made a detailed presentation before the SEAC.

Considering the information / documents furnished by the proponent and presentation made by the consultant, the SEAC decided to take decision on the proposal after the proponent submits the following information/ documents followed by site visit by the sub-Committee of SEAC.

- a) Detailed layout map (master plan) in A1 size indicating width of the green belt, solid waste storage area and other activities.
- b) Land schedule and kism of land.
- c) BDA plan approval letter with map.
- d) % of area for parking should be revised according to BDA Parking norms and breakup area of parking for hotel and multiplex should be mentioned separately.
- e) Status of permission from Water Resources Department, Govt. of Odisha for drawal of Ground Water.
- f) Water Balance diagram in detail.
- g) Layout showing Drainage plan both in non-monsoon and monsoon season.
- h) Details of Rain Harvesting methods, recharging pits, with detail calculation.
- i) Detail water balance diagram of water requirement along with compensating water from Rain water Harvesting system.
- j) Stack height of DG set should be mentioned.
- k) Certificate from the concerned DFO about the distance of the project site from the Eco-Sensitive Zone of Chandaka-Dampada Wildlife Sanctuary and Nandan Kanan Sanctuary.
- l) Status of Wildlife Clearance along with copy of the application submitted for Wildlife Clearance (if any) as the project is located within 10 km (default) from the boundary of Nandan Kanan Sanctuary.
- m) Details of Renewable energy to be used in project.
- n) Detailed proposal for usage of solar pumps to increase the usage of Solar energy in the project.
- o) Exploring the possibility of treatment of waste water in a pond / reservoir by treatment with algae including maintaining its water quality for different purposes to reduce the burden on ground water use if allowed by Water Resource Department, Govt. of Odisha.
- p) Traffic density study by Operation Research (OR) Expert and copy of the same shall be submitted.

ITEM NO. 4

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR CONSTRUCTION OF INTER-STATE BUS TERMINAL (ISBT) AT BARAMUNDA, BHUBANESWAR, ODISHA OF BHUBANESWAR DEVELOPMENT AUTHORITY WITH A TOTAL BUILT UP AREA 28, 124 M² (EC).

1. The Bhubaneswar Development Authority had proposed for construction of Inter-State Bus Terminal (ISBT) at - Baramunda, Bhubaneswar with total built-up area 28,124 m².

2. The proposal was discussed in the SEAC meeting held on 06.07.2018. The SEAC observed that Airport Authority of India has issued the NoC for the said ISBT project with height restriction upto 15.17 meter as against their proposal of 28.75 meter.
3. The SEAC in its meeting held on 06.07.2018 decided to take decision on the proposal after the proponent submits the modified proposals along with filled in application and drawings of the proposed project as per the height restriction approved by Airport Authority of India.
4. The proponent has submitted a modified proposal as per the height restriction approved by Airport Authority of India.
5. Brief project details of the modified proposal are given below:

Sl. No.	Description	Details	Unit
	GENERAL		
1.	Total Plot Area	62726.27	M ²
2.	Proposed Built up area	28,124	M ²
3.	Number of Building Blocks	Two (Terminal & Commercial block)	---
4.	Max. Height of Building upto Terrace	Terminal block (G+2): 15 Commercial block (B+G+2): 15	M
5.	Max. no. of floors	Terminal block : G+2 Commercial block : B+G+2	---
6.	Cost of the Project	Approx. 127	Crores
7.	Expected population (All floating)	78000	---
	AREA		
8.	Permission Ground Coverage area	15%	---
9.	Proposed Ground Coverage area	9.6%	---
10.	Permission FAR Area	1	FAR
11.	Total Basement Area	5130 (in commercial block)	M ²
12.	Total parking area	30% of FAR	---
13.	Terminal and Commercial Area	Terminal Area : 15883 Commercial Area : 12241	M ²
	WATER		
14.	Total water requirement	1288	KLD
15.	Fresh water requirement	772	KLD
16.	Waste water generation	979	KLD
17.	Proposed STP capacity	1000	KLD
18.	Treated water available for reuse	930	KLD
19.	Recycled water used	535	KLD
20.	Surplus treated water	395	KLD
	PARKING		
21.	Total parking required as / Building bye laws	3738 (30% of FAR)	M ²

Sl. No.	Description	Details	Unit
22.	Proposed total parking : Terminal	4359	M ²
23.	Required parking for commercial facilities	2672 (30% of Built up area)	M ²
24.	Proposed parking in basement : Commercial	5130	M ²
GREEN AREAS			
25.	Required green area	15%	---
26.	Proposed green area	18%	---
WASTE GENERATION			
27.	Municipal solid waste generation	9000	Kg/day
28.	Quantity of Hazardous waste generation	2	Ltr/day
29.	Quantity of sludge generation from STP	10	Kg/day
POWER			
30.	Total power generation	3000	KVA
31.	DG set backup	3x750	KVA
CONNECTIVITY			
32.	Rail	Bhubaneswar Railway Station at 5 km SE	KM
33.	Air	BijuPattnaik International Airport at a distance of 1.5 km SE	KM
34.	Road	Road Density : 11.82	KM ²
35.	Forest	Chandaka Forest & Elephant Reserve at a distance of 9 km NW	KM

6. Bhubaneswar Development Authority (BDA) vide their RFP no. 17938/BDA dated 26.07.2018 and Agreement with DIMTS dated 18.09.2017 propose to develop Inter-state Bus Terminal (ISBT) at Baramunda.
7. The proposed "Inter State Bus Terminal (ISBT)" will be located at Baramunda, Bhubaneswar. Environmental Clearance will be applied for total plot area of 15.5 Acre out of which ISBT area will be on plot size of 11.48 Acre and commercial/office area will be on plot of 4.02 Acre. The total built-up area of the proposed project is 28,124 sqm, hence the project comes under category 8 (a) of EIA notification, 2006.
8. Demand forecasting for ISBT was done considering past trend in growth and analysing future prospects of project influence area. Elasticity approach of growth rate estimation was used for long term demand forecasting for the prescribed Horizon Year of FY 2048.
9. The overall target is a 'state-of-the-art' terminal, for which we list key design objectives:
 - Attractive, modern, iconic architecture with civic dignity.

- Comfort and convenience of the users by providing user-friendly facilities
- Special amenities for the physically challenged and special needs passengers
- Circulation to have adequate space and routes which are direct and obvious
- Planning to have good lines of sight, visually open, avoiding cross-flows and congestion
- Entrances to be well coordinated with other forms of transport
- Retail and service areas to be modern, successful, and well-coordinated within the design
- Utilize leading edge technologies and innovative services
- Service access and emergency vehicle access to be coordinated within the design
- Master plan to improve urban design and transport links in the entire area of terminal environs
- Sustainable considerations in the development
- Commercial Property Development to be optimized and integrated with the overall design

10. The conceptual plan for the bus terminal is explained as follows:

- (i) Approximately 4 acre of land has been demarcated on the front towards National highway side for commercial purpose and this area is not included in ISBT land
- (ii) The terminal and its related facilities are planned at the rear side (existing depot) of the site having the bus entry from the existing exit side, i.e., southern side access road.
- (iii) The bus depot facilities, i.e. bus parking and workshop facilities are planned at the rear area, open to sky.
- (iv) The private vehicle entry/ exit for the terminal is kept from the northern access road, thus integrating the terminal and non-terminal activities.
- (v) The terminal building has the minimum mandatory facilities on the ground floor and the remaining administrative facilities for terminal have been proposed on the first and the second floor, i.e., Driver's rest room, Administrative offices, Cloak rooms, etc.
- (vi) Portion of the First floor are reserved for some amount of commercial activities like food court, restaurants and Retail spaces.
- (vii) Portion of the second floor is reserved for Retail or office space (commercial space for revenue generation).
- (viii) This commercial area within the terminal building has been provisioned with retail spaces, restaurants (fine dining), and offices.
- (ix) Dedicated space for repair bays, bus wash and service pits have been at the rear area.
- (x) Ample space for private parking as per requirement is planned near the private vehicle drop off @ 42.5 m LVL

- (xi) Dedicated auto lanes and taxi lanes near the drop off @ 45.65 m LVL have been planned for smooth movement of these modes of transport.
- (xii) Dedicated access is kept for the commercial area from the northern access road.
- (xiii) The services that have been taken into consideration and are proposed to be provided at the ISBT are :-
- Provision of Independent Electrical sub-station / power back up – DG set provision
 - Common Area Lighting with LED Lights / UPS & Emergency Lighting
 - Passenger Information Displays System/ Entertainment such as Televisions / Signage
 - Provision for Elevators / escalators as per requirement
 - Fire Detection and Alarm System / Fire-Fighting System
 - Solar electric power system for harvesting Solar Energy
 - CCTV System / Public Address System / Access Control System
 - Parking Management System as per requirement
 - Telephone Networking System
 - Provision for drinking water
 - Underground / Overhead Water Storage Tanks/ Rain Water Harvesting System
 - Sewage Treatment Plant [STP]/ Effluent Treatment Plant [ETP] for Bus Wash
 - Provision for waste generation, collection, transportation and disposal.
 - E-waste management and disposal
 - Air-Conditioning of Passenger Lounge
 - GPS based Digital Clock.
- (xiv) The existing terminal area shall be temporarily in operation and shall be barricaded during the execution phase.
11. The total project cost including Interest during construction (IDC) component is estimated as ₹ 154.24 crores.
12. Baseline environmental data generation for air, water, noise and soil quality monitoring around the project site was conducted from March 2018 to April 2018 for Proposed Inter State Bus Terminal (ISBT) at Baramunda, Bhubaneswar as per EIA Notification 2006 & its amendments. Apart from field monitoring, additional data was also collected from secondary sources like irrigation department, India Meteorological Department (IMD), Central Ground Water Board, Geological Survey of India, State Ground Water Department, State Pollution.

13. Air temperature and wind speed were recorded at hourly intervals continuously during the monitoring period. Ambient air quality monitoring was carried out twice a week with a frequency of 24 hours for 12 weeks. The water quality at the site and other locations within the 10 km impact zone was monitored during March 2018 – April 2018.
14. It has been proposed to use environment friendly construction materials for the project that are locally available to reduce concerns related to transportation of materials as well as achieve cost effectiveness.
15. Fly ash mixed cement and bricks shall be used for the construction of the project. The use of timber is minimal, with the provision of aluminum frames for windows. Paints with low VOC and no ammonia have been proposed to be used.
16. The consultant **M/s Paramarsh (Servicing Environment and Development) and SAMNE Associates Pvt. Ltd., 4/97, Viram Khand, Gomti Nagar, Lucknow – 226010, Uttar Pradesh** along with the proponent made a detailed presentation before the SEAC on 10.10.2018.
17. The proponent was requested to furnish the following information / documents as per the presentation meeting held on 10.10.2018. The proponent had furnished the information / documents.
 - a) The proponent has intimated during the presentation that the EIA report has been prepared by the QCI Accredited consultant M/s Paramarsh (Servicing Environment and Development), 4/97, Viram Khand, Gomti Nagar, Lucknow – 226010, Uttar Pradesh. But in the cover page of the document name of the consultant has been mentioned as DIMTS. Modified document incorporating the name of the consultant has to be submitted.
 - b) Details of rainwater harvesting.
 - c) Details of drainage system along with drainage map.
 - d) Water balance including waste water management.
 - e) Detailed traffic survey and traffic analysis including residence time and level of congestion using an appropriate scientific model for the prescribed Horizon year of FY 2048 and a comprehensive study to be carried out by the proponent. The report thereof to be submitted. Further, based on the said report a sound traffic management plan to be submitted.
 - f) Detailed proposal shall be submitted by the proponent to ensure that no long route bus shall be parked outside the terminals in road side leading to road congestion in the locality.
 - g) Detailed Solid Waste Management Plan.
18. The MoEF&CC, Govt. of India notification vide S.O. 5733 (E), 14th Nov, 2018 stipulates that local bodies such as Municipalities, Development Authorities, District Panchayats as shall stipulate environmental conditions while granting building permission in respect of building

or construction projects with built-up area >20,000 m² to 50,000 m² and industrial sheds, educational institutions, hospitals and hostels for educational institutions 20,000 m² upto 1,50,000 m².

19. The MoEF&CC, Govt. of India notification vide S.O. 5736 (E), 15th Nov, 2018, exempted Environmental Clearance for building and construction project < 50, 000 m² and industrial sheds, educational institutions, hospitals and hostels for educational institutions < 1,50,000 m².
20. The SEAC in its meeting held on 12.12.2018 opined that Environmental Clearance is not required for this project as per the MoEF&CC, Govt. of India notification vide S.O. 5736 (E), 15th Nov, 2018 as the total builtup area is < 50, 000 m² and returned the proposal to SEIAA.
21. Moreover, the Hon'ble NGT, Principal Bench, New Delhi in O.A. No. 1017/2018, dated 03.12.2018 has stayed the above notifications of MoEF&CC, Govt. of India.
22. The SEAC in its meeting held on 13.12.2018 recommended that the SEIAA, Odisha may consider to request the MoEF&CC, Govt. of India regarding the operational part of the above notifications of MoEF&CC, Govt. of India in view of directions of Hon'ble NGT, Principal Bench, New Delhi before taking a decision on the proposals under the above category.
23. During the last meeting of SEIAA held on 05.04.2019, the authority had decided to send the building and construction projects under above category to SEAC, Odisha for appraisal as per the OM No. 3-150/2017-IA-III dated 03.04.2018. This decision of SEIAA, Odisha was communicated by the SEIAA office to SEAC office vide letter no. 6621/SEIAA, dated 17.04.2019.
24. The SEAC decided to appraise building and construction projects of above category as per above decision of the SEIAA, Odisha.
25. The SEAC verified the information / documents furnished by the proponent as per para-17 above and observed the following:

Sl. No.	Information / clarification sought by SEAC	Compliance furnished by the proponent
(i)	The proponent has intimated during the presentation that the EIA report has been prepared by the QCI Accredited consultant M/s Paramarsh (Servicing Environment and Development), 4/97, Viram Khand, Gomti Nagar, Lucknow – 226010, Uttar Pradesh . But in the cover page of the document name of the consultant has been mentioned as DIMTS. Modified document incorporating the name of the consultant has to be submitted.	Modified EIA report incorporating name of Consultant has been furnished.
(ii)	Details of rainwater harvesting.	Details of rainwater harvesting has been furnished.
(iii)	Details of drainage system along with	Details of drainage system along with

Sl. No.	Information / clarification sought by SEAC	Compliance furnished by the proponent
	drainage map.	drainage map has been furnished.
(iv)	Water balance including waste water management.	Water balance including waste water management has been furnished.
(v)	Detailed traffic survey and traffic analysis including residence time and level of congestion using an appropriate scientific model for the prescribed Horizon year of FY 2048 and a comprehensive study to be carried out by the proponent. The report thereof to be submitted. Further, based on the said report a sound traffic management plan to be submitted.	Detailed Traffic Report has been furnished.
(vi)	Detailed proposal shall be submitted by the proponent to ensure that no long route bus shall be parked outside the terminals in road side leading to road congestion in the locality.	Proposal furnished
(vii)	Detailed Solid Waste Management Plan.	Detailed Solid Waste Management Plan has been furnished.

26. The SEAC on its meeting held on 27.04.2019 observed that most of the members in the SEAC are new and not aware about the project. Therefore, Committee decided to ask the proponent to make a presentation on compliance furnished for consideration of their proposal.
27. The project proponent along with the environment consultant M/s DIMTS made a detailed presentation before the SEAC on compliance furnished.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s DIMTS**, the SEAC recommended for grant of Environmental Clearance for the project valid for a period of 7 years with stipulated conditions as per **Annexure – III**.

ITEM NO. 5

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR TWO BLOCKS OF (B+G+13) & TWO BLOCKS OF B+G+9) MULTISTORIED AND ONE BLOCK OF (G+6) EWS RESIDENTIAL APARTMENT BUILDING AT KORADAKANATA & JHARAPADA, BHUBANESWAR OF M/S. PREMSHREE REAL ESTATE PVT. LTD WITH TOTAL BUILT UP AREA 34862.14 M² (EC).

1. The proposed site is located at Koradakanta, Jharapada, Bhubaneswar, Odisha. The Geographical co-ordinate of the project site is: Latitude - 20°16' 47.6" N & Longitude - 85° 52' 25.3" E. The project site is well connected through National Highway NH-203 Cuttack-Puri Bypass road is just nearby the project site. The nearest railway station is Bhubaneswar Railway station at a distance of approx 3.6 Km in South West direction. The nearest airport is Biju Patnaik Airport at a distance of approx. 7.0 Km in South West direction from project site.

2. The proposed project site is coming in Plot No. 566 (P), 295 (P), 294 (P), Mouza- Koradakanta & Plot No. 2182 (P), Mouza- Jharpada, Bhubaneswar. The maximum temperature is about 36.0o C and the minimum temperature is 16.0o C felt in the area. The average annual rainfall in the area is 1447.5 mm.

3. The building detail of the project is as follows:

Particular	Name/Area (sqm)	Permissible	Proposed
Project Name	Residential Apartment at Koradakanta, Odisha.	--	--
Name of the Activity	Two Blocks of (B+G+13) & Two Blocks of (B+G+9) Multistoried And One Block of (G+6) EWS Residential Apartment Building	--	--
Plot Area	12677.33 sqm	12677.33 sqm	12677.33 sqm
Permissible Ground Coverage @ 30 % of the total plot area	--	3803.19 sqm	-
Proposed Ground Coverage @ 27.83 %	--	--	3528.51 sqm
Permissible FAR @ 2.75	--	34862.67 sqm	---
Proposed FAR @ 2.75	--	--	34862.67 sqm
Built up Area	--	--	34862.67 sqm
Maximum Height	--	--	42 m
Road Area (40.21 %)	--	--	5097.65 sqm
Open Parking Area (7.7 %)	--	--	978.49 sqm
Basement Parking	--	--	9381.78 sqm
Stilt Parking	--	--	533.36 sqm
Total Parking (30 % of Built up Area)	--	10458.64 sqm	10893.63 sqm
Green Area (20 %)	--	2535.46 sqm	2539.46 sqm
Maximum No. of Floor	--	--	B+14
Power/Electricity Requirement & Sources	CESU of Odisha State Electricity Board	--	1233.7 KW
No. of DG sets	--	--	1 x 750 KVA DG

Particular	Name/Area (sqm)	Permissible	Proposed
Water requirement & Sources	Ground Water Supply	--	94.0 KLD
Sewage Treatment & Disposal	--	--	STP Capacity - 140 KLD
Estimated Population- Residential, Floating/visitors	--	--	1111

4. **REQUIREMENT FOR THE PROJECT:**

Power requirement:

The daily power requirement for the proposed complex is preliminarily assessed as 1233.7 KW source from CESU of Odisha State Electricity Board. In order to meet emergency power requirements during the grid failure, there is provision of 1 no. of DG set having 750 KVA capacities for power back up in the Residential Building Project.

For energy conservation, there will be 65 nos. of Solar Lighting poles (@72 Watt) has been proposed for Street & common area solar lighting, so

Energy conservation by using Solar Street Lighting = $65 \times 72 = 4680$ watt = 4.7 KW

Energy conservation by using Solar lighting for common area = 65 KW

Total Energy Conservation = $(65 + 4.7)$ KW = 69.7 KW

Total Energy saving = $69.7/1233.7 = 0.0564 \times 100 = 5.6 \%$

Water requirement:

Fresh make up of 94.0 m³/day will be required for the project which will be sourced from Ground water or PHD Supply. Waste water of 122.2 KLD will be treated in a STP of 140 KLD capacity, which includes primary, secondary and tertiary treatment. After treatment the treated water will be discharge to the Gangua Nalla.

Rain Water will be harvested through 23 nos. of recharging pits.

Fire fighting Installations:

Firefighting system will be installed as per recommendation of the Fire fighting Officer, Odisha and as per the guideline of NBC (part-4).

Green Belt Development:

Green belt will be developed over an area of 2535.46 sqm which is 20.0 % of the plot area; by using the local species like Bara gachha, Nageswar, Neem, Ashok, Polanga, Jamu, Bela, Pijilu, Kaniara, Tagar, Heena, etc.

Solid Waste Management:

From the residential complex solid waste in form of food waste from kitchen and miscellaneous waste will be generated @ 0.4 kg/capita/day, which will be about 1010 x 0.4 = 404 kg/day. The generated solid waste from the residential complex will be segregated as biodegradable and non-biodegradable. This will be collected in separate coloured bins. Proper waste management practices will be adopted during the collection, storing and disposal of the generated solid waste.

Waste generation from road sweeping will be 101 x 0.1 = 10.1 kg/day. Solid waste from sweeping and Dry Garbage containing non biodegradable wastes like polythene bags, metal, ceramic Waste, glass etc. shall be stored in separate garbage bin and send to approved agency for final disposal.

Around 56 kg/day of STP sludge will be generated. As sewage sludge contains many elements essential to plant life, such as nitrogen, phosphorous, potassium, and in addition, at least traces of minor nutrients which are considered more or less indispensable for plant growth, such as boron, calcium, copper, iron, magnesium, manganese, sulphur and zinc. The sludge humus, besides furnishing plant food, benefits the soil by increasing the water holding capacity, thus making possible the working of heavy soils into satisfactory seed beds. Sludge will be used as manure in landscaping.

Sl. No.	Category	Counts (heads)	Waste generated (kg/day)
1.	Residents	1010 @ 0.4 kg/day	404
2.	Road sweeping	101 @ 0.1 kg/day	10.1
3.	STP sludge		56
Total Solid Waste Generated			470.1 kg/day

5. **Estimated Project cost:**

Total Capital Cost = ` 45 Crores

Environment Management Cost = ` 105 lakhs

6. The consultant **M/s Centre for Envotech & Management Consultancy Pvt. Ltd., N-5/305, IRC Village, Bhubaneswar** along with the proponent made a detailed presentation on 01.09.2017. The SEAC decided to take decision on the proposal after receipt certain information / documents.
7. The SEAC also decided that the proposed site to be visited by sub-committee of SEAC to verify the drainage network of the proposed site.
8. The proposed site was visited by the Sub-Committee of SEAC on 22.11.2017. The sub-Committee recommended to submit certain information / documents for consideration of the proposal.
9. The proponent was requested to furnish the following information / documents as per the presentation meeting held on 01.09.2017 and site visit report of the sub-committee of SEAC. The proponent furnished some of the information / documents.

- (i) Drainage system of the area and final discharge point.
 - (ii) Water quality of Gangua Nallah if the waste water to be discharged to Gangua nallah.
 - (iii) Permission status of concerned authority for discharge of waste water to Gangua nallah.
 - (iv) Solid Waste Management Plan as per Solid Waste Rules, 2016.
 - (v) Proposal for organic waste converter for disposal of organic waste.
 - (vi) In between the culvert on National Highway and the Gangua Nallah there is a distance of 0.5 km. The storm water naturally flows over such stretch of land. It is not known whether such land stretch is private or Govt. land. The status of land of that stretch is to be furnished.
 - (vii) The master plan of BDA for the area may be submitted which is necessary to ensure that the discharged treated water falls into Gangua Nallah.
 - (viii) Area under tree / plantation shall be clearly shown in the layout map with number of plants (tree species) to be planted and submitted.
10. The MoEF&CC, Govt. of India notification vide S.O. 5733 (E), 14th Nov, 2018 stipulates that local bodies such as Municipalities, Development Authorities, District Panchayats shall stipulate environmental conditions while granting building permission in respect of building or construction projects with built-up area >20,000 m² to 50,000 m² and industrial sheds, educational institutions, hospitals and hostels for educational institutions 20,000 m² upto 1,50,000 m².
 11. The MoEF&CC, Govt. of India notification vide S.O. 5736 (E), 15th Nov, 2018, exempted Environmental Clearance for building and construction project < 50, 000 m² and industrial sheds, educational institutions, hospitals and hostels for educational institutions < 1,50,000 m².
 12. The proponent had requested to consider the proposal as per MoEF&CC, Govt. of India notification dated 15th November, 2018.
 13. The SEAC in its meeting held on 03.12.2018 opined that Environmental Clearance is not required for this project as per the MoEF & CC, Govt. of India notification vide S.O. 5736 (E), 15th Nov, 2018 as the total builtup area is < 50, 000 m² . Hence, proposal was returned to SEIAA.
 14. Moreover, the Hon'ble NGT, Principal Bench, New Delhi in O.A. No. 1017/2018, dated 03.12.2018 has stayed the above notifications of MoEF&CC, Govt. of India.
 15. The SEAC in its meeting held on dated 13.12.2018 recommended that the SEIAA, Odisha may consider to request the MoEF&CC, Govt. of India regarding the operational part of the above notifications of MoEF&CC, Govt. of India in view of directions of Hon'ble NGT, Principal Bench, New Delhi before taking a decision on the proposals under the above category.
 16. During the last meeting of SEIAA held on 05.04.2019, the authority had decided to send the building and construction projects under above category to SEAC, Odisha for appraisal as

per the OM No. 3-150/2017-IA-III dated 03.04.2018. This decision of SEIAA, Odisha was communicated by the SEIAA office to SEAC office vide letter no. 6621/SEIAA, dated 17.04.2019.

17. The SEAC decided to appraise building and construction projects of above category as per above decision of the SEIAA, Odisha.
18. The SEAC verified the information / documents furnished by the proponent as per para-9 and observed the following :

Sl. No.	Clarification sought	Compliance furnished by the proponent
(i)	Drainage system of the area and final discharge point.	Master plan along with final discharge point of the Gangua Nallah has been furnished.
(ii)	Water quality of Gangua Nallah if the waste water to be discharged to Gangua nallah.	Water quality of the Gangua Nallah has been furnished.
(iii)	Permission status of concerned authority for discharge of waste water to Gangua nallah.	PHED letter for water and sewerage discharge has been furnished.
(iv)	Solid Waste Management Plan as per Solid Waste Rules, 2016.	Solid Waste Management Plan has been furnished.
(v)	Proposal for organic waste converter for disposal of organic waste.	Proposal for organic waste converter for disposal of organic waste has been furnished.
(vi)	In between the culvert on National Highway and the Gangua Nallah there is a distance of 0.5 km. The storm water naturally flows over such stretch of land. It is not known whether such land stretch is private or Govt. land. The status of land of that stretch is to be furnished.	Stretch land belongs to Government.
(vii)	The master plan of BDA for the area may be submitted which is necessary to ensure that the discharged treated water falls into Gangua Nallah.	Treated water to be discharged to Gangua Nallah. Drainage plan and Master plan of the BDA has been furnished.
(viii)	Area under tree / plantation shall be clearly shown in the layout map with number of plants (tree species) to be planted and submitted.	Total greenbelt area is 2535.46 m ² (20% of the total plot area). Layout plan has been furnished along with list of tree species.

19. The SEAC on its meeting held on 27.04.2019 observed that most of the members in the SEAC are new and not aware about the project. Therefore, Committee decided to ask the proponent to make a presentation on compliance furnished for consideration of their proposal.
20. The Environment consultant **M/s Centre for Envotech & Management Consultancy Pvt. Ltd., N-5/305, IRC Village, Bhubaneswar** along with the proponent made a presentation on

20.07.2019 on compliance furnished. The SEAC decided to take decision on the proposal after receipt of following information / documents from the proponent.

- (i) In case drainage passes through the private land, the ownership of the land in favour of the proponent is to be submitted and in case it passes through Govt. land, the drainage plan / map need to be endorsed / validated by BDA.

ITEM NO. 6

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR PROPOSED CHROME ORE BENEFICIATION PLANT OVER AN AREA 13.43 ACRES OF CAPACITY 1, 20, 000 TPA THROUGHPUT AT MOUZA- BAUNSAMULI, THANA BADACHANA, DISTRICT- JAJPUR OF M/S. ADISH MINERALS PVT. LTD. (TOR)

1. The proposal was considered by the Committee to determine the “Terms of Reference (ToR)” for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter.
2. M/s Adish Minerals Private Limited has proposed for installation of Chrome Ore Benefication Plant of annual capacity 1, 20, 000 (0.12 Million TPA throughput) at - Mouza-Baunsamuli, Thana- Badachana, District Jajpur, Odisha.
3. As per EIA Notification dated 14th Sep, 2006 as amended from time to time, the project falls under Category “B”, Project or Activity 2(b) – 4 (EIA Notification dated 25th June, 2014).
4. The site is located at Mouza- Baunsamuli, Thana-Badachana, District- Jajpur of Odisha bounded by Latitude 20°41’49.3” N and Longitude 86°00’04.1” E which falls under the Survey of India Toposheet No. 73 H/14, 73 L/2, 73 H/13 & 73 L/1. Nearest town Chandikhol located at a distance of 10.0 Km from the project site. National Highway (NH-16) is at a distance of 12-15 Km from the project site. NH- 5 connects the factory site with major cities like Jajpur ,Dubri ,Sukhinda ,Kailpani in order to get their raw materials transported to the factory site . It also connected the States like West Bengal, Andhra Pradesh, therefore the end processed products can easily be transported to the buyers site with the convenient connecting Conveyance Facilities.
5. No National Park / Wildlife Sanctuary /Biosphere Reserve /Tiger reserve have been reported to be located in the core & buffer Zone of the project and the area does not report to form corridor for schedule-1 Fauna.
6. Total land requirement will be 13.43 acres which has been already acquired. There is no forest land involved in the proposed site. No rehabilitation and resettlement is required for the proposed project.
7. The water requirement for the proposed project will be 120 m³/hr. It will be sourced from bore well. Six nos. of bore-wells constructed in the Plant site which will be sufficient to provide the water need of the company.
8. Power: There will be an installation of a 315 KVA Transformer and it has been estimated that approximately 292 KVA will be used for running the motors of the Plant

& Machinery if all machines work at full capacity and there will be utilization of the rest 24 KVA for the Office administrative & Staff Quarters . The Power connection will from CESU. In future, if there will be an expansion of the plant capacity from current 100% capacity of 1, 20,000 tons, accordingly the power connectivity for 33 KVA transformer will be installed . In Case of Power Failure situation, it is envisaged that a D.G Set of 320 KVA, of Kirloskar make will be installed which will operate the plant at full load even there is a power cut.

9. Fuel: Diesel as a fuel is required for running the Tipper & JCB Loader. And there will be requirement of 115 litres per Day.
10. The Raw Material used will be Chrome Ore of below 40% Grade Cr₂O₃ with 10% moisture with recovery rate of 62%. The finished products generated will be Chrome Concentrate Cr₂O₃ with 8% moisture.
11. Chrome ore beneficiation plant of 1, 20, 000 Ton/yr (0.12 Million TPA throughput) feed with maximum production of chrome ore concentrate of 74,400 Ton/yr.
12. The project will generate 90 nos. of manpower, out of which 70 nos. Labourer's skilled & unskilled employees and the rest 20 nos. will be recruited as Administrative & operating facilities.
13. Safeguard Measures like, as regular water sprinkling shall be carried out in critical areas prone to pollution, like haul road, loading & unloading points. It shall be ensured that the ambient Air Quality Parameters conform to the norms prescribed by the central pollution control board in his regard.

Sl. No.	Source of Pollution	Pollutants	APC measures
1	Raw material handling yard (Unloading, Stacking)	Fugitive Dust	Dust suppression system such as water sprinkling
2	Screening	Fugitive Dust	Dry Fog system
3	Internal Roads	Fugitive Dust	Mobile Tanker, Internal Roads will be made Black topped
4	Fines stock yard of COB Plant	Fugitive Dust	Will kept under a shed
5	Product discharge system (finished product)	Fugitive Dust	Water sprinkling
6	Movement of vehicles	Fugitive Dust	Water sprinkling

14. The tailings discharged through beneficiation process will be treated with ferrous sulphate to minimize the hexavalent chromium in the tailings. Garland drains will be constructed to collect the discharges and the same will be drained down to re-circulation pond. To control the dust handling of feed ore and finished product, water sprinklers in Raw material yard and finished product yard have been recommended. In addition adequate plantations are recommended.
15. Greenbelt / plantation will be done in 33% of the total plant area. The entire plant is set up at an area of 1.30 acres. And the rest land (4.43 Acres) will stand open and will embarking

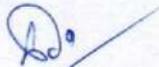
as a green Belt Zone out of total land (13.43 Acres). Plantation will be done in and around the plant premises. 80% survival rate will be maintained with all possible efforts. The trees will be planted at suitable grid spacing to encourage proper growth. Local plant species will be preferred.

16. Total Cost of the proposed project will be ₹ 984.81 Lakhs.
17. The project proponent along with the environment consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar** made a detailed presentation before the SEAC.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar**, the SEAC prescribed the ToR as per **Annexure – IV** for conducting detailed EIA study.



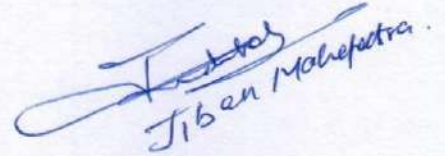
Sri. B. P. Singh
Chairman, SEAC



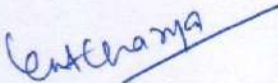
Dr. D. Swain
Member, SEAC



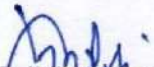
Prof. (Dr.) P.K. Mohanty
Member, SEAC




Sri. J. K. Mohapatra
Member, SEAC



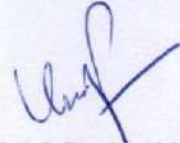
Sri. K. R. Acharya
Member, SEAC



Dr. Sailabala Padhi
Member, SEAC



Prof. (Dr.) B.K. Satpathy
Member, SEAC



Dr. K.C.S Panigrahi
Member, SEAC

Approved



Chairman, SEAC



To

Sj. Debidutta Biswal
Secretary, SEAC
State Pollution Control Board,
Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-Viii, BBSR-751012

ବିଷୟ : ଦେବଗଡ଼ ଜିଲ୍ଲା ବଞ୍ଜାରୀ ଗ୍ରାମରେ ସାଧାରଣ ସଙ୍କଟାପନ୍ନ ବର୍ଯ୍ୟବସ୍ଥୁର ବିନିଯୋଗ ଓ ଉପଚାର ସ୍ଥାପନା ନିମନ୍ତେ
M/s. Western Intigrated Waste Management Facility Pvt. Ltd. ର ପରିବେଶ ମଞ୍ଜୁରୀ ସ୍ୱୀକୃତି
ବିରୁଦ୍ଧରେ ଅଭିଯୋଗ ।

ମହାଶୟ,

ନିବେଦନର କାରଣ ଏହିକି ଯେ ଦେବଗଡ଼ ଜିଲ୍ଲା ବଞ୍ଜାରୀ ଗ୍ରାମରେ ସାଧାରଣ ସଙ୍କଟାପନ୍ନ ବର୍ଯ୍ୟବସ୍ଥୁର ବିନିଯୋଗ ଓ ଉପଚାର ସ୍ଥାପନା ନିମନ୍ତେ **M/s. Western Intigrated Waste Management Facility Pvt. Ltd.** ର ପରିବେଶ ମଞ୍ଜୁରୀ ସ୍ୱୀକୃତି ପାଇଁ ଆସନ୍ତା ତା. ୨୦.୦୭.୨୦୧୯ ରିଖ ଦିନ ପ୍ରସ୍ତାବ ରଖାଯାଇଛି ।

ଏଣୁ ବିନୀତ ଅନୁରୋଧ କରୁକି ଆପଣ ଦୟା ବସତଃ ନିମ୍ନ ଆପତ୍ତିଗୁଡ଼ିକ ଅନୁଧ୍ୟାନ କଲେ ଆମେ ଚିରୋପକୃତ ହେବୁ ।

(୧) ଦେବଗଡ଼ ଜିଲ୍ଲା ମୋଟ ଉପରେ ୨୭୮୧.୬୬ ବର୍ଗ କିଲୋମିଟରରେ ବିସ୍ତୃତ ଏବଂ ଏଥି ମଧ୍ୟରୁ ମୋଟ ଉପରେ ପ୍ରାୟ ୧୫୬୦.୨୨ ବର୍ଗ କିଲୋମିଟର ଜଙ୍ଗଲ ଜମି ଅଟେ । ଦେବଗଡ଼ ଜିଲ୍ଲାରେ ଓଡ଼ିଶା ସରକାରଙ୍କ ଦ୍ୱାରା ୧୯୬୨ ମସିହାରେ ଏକ ଉଷାକୋଠୀ ଓଲଟ ଲାଇଫ ସେକ୍ସୁରୀ ପ୍ରତିଷ୍ଠା କରାଯାଇଥିଲା ଏବଂ ଯାହାକି ୩୦୪.୦୩ ବର୍ଗ କି.ମି. ପର୍ଯ୍ୟନ୍ତ ବ୍ୟାପ୍ତ । ଓଡ଼ିଶା ଦେବଗଡ଼ ଜିଲ୍ଲା କେନ୍ଦେଇଯୋରା ପଞ୍ଚାୟତ ଅଧିନସ୍ଥ ବଞ୍ଜାରୀ ଗ୍ରାମରେ ହେବାକୁ ଥିବା ସାଧାରଣ ସଙ୍କଟାପନ୍ନ ବର୍ଯ୍ୟବସ୍ଥୁର ବିନିଯୋଗ ଓ ଉପଚାର ପ୍ରକଳ୍ପଟି ଉଷାକୋଠୀ ଓଲଟ ଲାଇଫ ସେକ୍ସୁରୀ ଉପରେ କି ପ୍ରଭାବ ପକାଇବ ତାହା ଆକଳନର ବିଷୟ ।

SEELEBKA
17/7

(୨) ଦେବଗଡ଼ ଜିଲ୍ଲା କେନ୍ଦେଇଯୋରା ପଞ୍ଚାୟତ ଅଧିନସ୍ଥ ବଞ୍ଜାରୀ, ଗୁଣ୍ଡେଇମରା, ବେଝକରବାହାଲ, ଅସଲନତା ଓ ବରାହମୁଷା ଏହି ପାଞ୍ଚଟି ଗ୍ରାମରେ ପ୍ରାୟ ୭୦୦୦ ଲୋକ ବସବାସ କରନ୍ତି । ଏହି ପାଞ୍ଚଗୋଟି ଗ୍ରାମର ପ୍ରାୟ ୯୦ ପ୍ରତିଶତ ଲୋକ ଆଦିବାସୀ ସମ୍ପ୍ରଦାୟର ଏବଂ ଜଙ୍ଗଲ ଓ ଜଙ୍ଗଲଯାତ କ୍ରମେ ଉପରେ ନିର୍ଭର କରନ୍ତି । ପ୍ରସ୍ତାବିତ ଶଙ୍କଟାପନ୍ନ ବର୍ଯ୍ୟବସ୍ଥୁର ଉପଚାର ଏବଂ ବିନିଯୋଗ ପ୍ରକଳ୍ପଟିର ପ୍ରତିଷ୍ଠା ପାଇଁ ବଞ୍ଜାରୀ ଗ୍ରାମର ପୁଟ ନଂ. ୧୪୮ ଏବଂ ୧୪୯କୁ ଇତ୍କୋ ତରଫରୁ ଜମି ଯୋଗାଇ ଦିଆଯାଇଛି । ପୁନଶ୍ଚ ଏତଦ୍ୱାରା ଜଣାଅଧିକ୍ଷ କି ପ୍ରାୟ ୫୦୦୦ ମୂଲ୍ୟବାନ ଗଛ ଏହି ଜମି ଉପରେ ରୋପଣ କରାଯାଇଛି ଏବଂ ଗ୍ରାମବାସୀଙ୍କ ଦ୍ୱାରା ବନ୍ୟ ସଂରକ୍ଷଣ ସମିତି ଗଠନ କରାଯାଇ ଏହାର ସଂରକ୍ଷଣ ବହୁ ପୂର୍ବରୁ କରାଯାଇଛି । ଏଭଳି ପରିସ୍ଥିତିରେ ଏହି ଜମିକୁ ପ୍ରକଳ୍ପ କରିବାକୁ ଦିଆଗଲେ ପ୍ରାୟ ପାଞ୍ଚ ହଜାର ଗରିବ ଆଦିବାସୀ ଲୋକ ଭୋକ ଉପାସରେ କାଳାତିପାତ କରିବେ ।

Mrs. Anura
17/7

(୩) **M/s. Western Intigrated Waste Management Facility Pvt. Ltd.** କରିବାକୁ ଯାଉଥିବା ପ୍ରସ୍ତାବିତ ପ୍ରକଳ୍ପଟିର ନିର୍ଦ୍ଦେଶ ମୂଲ୍ୟ ୪୨ କୋଟି ଧାର୍ଯ୍ୟ କରାଯାଇଛି । କିନ୍ତୁ ଏହି ସଂସ୍ଥାର ମୁଖ୍ୟ ପ୍ରମୋଟର ସଂସ୍ଥାଟିର ବାର୍ଷିକ ଆୟ ଏହାର ଏକ ତୃତୀୟାଂଶ ଠାରୁ ବିଶେଷ କମ୍ ଏବଂ ସଂସ୍ଥାର ସର୍ବମୋଟ ସମ୍ପତ୍ତି ମଧ୍ୟ ବିଶେଷ ଭାବେ କମ୍ । ତେଣୁ କେଉଁ ପରିସ୍ଥିତିରେ ଏପରି ଏକ ସଂସ୍ଥାକୁ ସଂକଟାପନ୍ନ ବର୍ଯ୍ୟବସ୍ଥୁର ଉପଚାର ଏବଂ ବିନିଯୋଗ ପ୍ରକଳ୍ପ କରିବା ପାଇଁ ରାଜ୍ୟ ସରକାରଙ୍କ ଇତିକଳ୍ପ ଓ ଇତ୍କୋ ସଂସ୍ଥା ପ୍ରୋତ୍ସାହନ ଦେଲା ଏବଂ କିଭଳି ଭାବେ ଏହାର ମୂଲ୍ୟାଙ୍କନ କଲା ଏହା ଏକ ସାଧାରଣରେ ପ୍ରଶ୍ନବାଚକ ।

(୪) ସଂକଟାପନ୍ନ ବର୍ଯ୍ୟବସ୍ଥୁର ସଠିକ ଉପଚାର କରାନଗଲେ ଏହା ଉଭୟ ପରିବେଶ ଓ ଜନସାଧାରଣଙ୍କ ଉପରେ ଭୟଙ୍କର ପ୍ରଭାବ ପକାଇଥାଏ । ତେଣୁ ସଂକଟାପନ୍ନ ବର୍ଯ୍ୟବସ୍ଥୁର ସଠିକ ଉପଚାର ଅତ୍ୟାଧୁନିକ କୌଶଳ ଏବଂ ବିଶେଷ ଅଭିଜ୍ଞତା ତଥା ପରିବେଶ ନିୟନ୍ତ୍ରଣ ବିଭାଗର ଧାରା ଅନୁସାରେ କରାଯାଇଥାଏ । ପୁନଶ୍ଚ ଦେବଗଡ଼ ଜିଲ୍ଲାରେ ହେବାକୁ ଥିବା ସାଧାରଣ ସଂକଟାପନ୍ନ ବର୍ଯ୍ୟବସ୍ଥୁର ଉପଚାର ଏବଂ ବିନିଯୋଗ ପ୍ରକଳ୍ପଟିର ପ୍ରମୋଟରଙ୍କ ପାଖରେ ପୂର୍ବରୁ କୌଣସି ବୈଷୟିକ କୌଶଳ ଏବଂ ଅଭିଜ୍ଞତା ନାହିଁ । ତେଣୁ କେଉଁ ପରିସ୍ଥିତିରେ ଏଭଳି ଅନଭିଜ୍ଞ ସଂସ୍ଥାକୁ ସଂକଟାପନ୍ନ ବର୍ଯ୍ୟବସ୍ଥୁର ପରିଚାଳନା ଓ ବିନିଯୋଗ କରିବା ପାଇଁ ପରିବେଶ ମଞ୍ଜୁରୀ ଦିଆଯାଇଛି ।

ଏଣୁ ବିନୀତ ଅନୁରୋଧ କରୁକି, ଆମର ଆପତ୍ତିକି ସହୃଦୟରେ ବଚାର କଲେ ଆମେ ଗ୍ରାମବାସୀଙ୍କୁ ଚିର ରୁଣୀ ରହିବୁ ।

॥ ଇତି ॥

ଗ୍ରାମବାସୀଙ୍କୁ

(କେନ୍ଦେଇଯୋରୀ, ଗୁଣ୍ଡେଇମରା, ବେଝକରବାହାଲ, ଅସଲନତା)

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR ESTABLISHMENT OF COMMON HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITY (CHWTSDF) AT VILLAGE BANJARI, DIST-DEOGARH, ODISHA BY WESTERN INTEGRATED WASTE MANAGEMENT FACILITY PVT. LTD.

A. Statutory compliance:

1. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
2. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
3. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area).
4. The proponent shall obtain necessary permission from concerned department for felling off trees if any.
5. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board.
6. The Project proponent should ensure that the TSDF fulfils all the provisions of Hazardous and other Wastes (Management and Trans-boundary Movement) Rules, 2016.
7. The project proponents shall adhere to all conditions as prescribed in the Protocol for 'Performance Evaluation and Monitoring of the Common Hazardous waste treatment, storage and disposal facilities' published by the CPCB in May, 2010.
8. The project proponent shall obtain the necessary permission from the concerned authority, in case of drawl of ground water / surface water.
9. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
10. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall

Secretary, SEAC

be obtained, as applicable by project proponents from the respective competent authorities.

B. Air quality monitoring and preservation:

1. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.
2. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NOx in reference to SO₂ and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120°each), covering upwind and downwind directions.
3. Gas generated in the Land fill should be properly collected, monitored and flared
4. 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 02 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 02 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.

C. Water quality monitoring and preservation:

1. The project proponent shall install Continuous Effluent Monitoring System with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
2. Sufficient number of Piezometer wells shall be installed in and around the project site to monitor the ground water quality in consultation with the State Pollution Control Board / CPCB. Trend analysis of ground water quality shall be carried out each season and information shall be submitted to the SPC Board, Odisha, the Regional Office of MoEF&CC and SEIAA, Odisha.

Secretary, SEAC

3. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB, Regional Office of SPCB and SEIAA, Odisha along with six-monthly monitoring report.
4. There shall be no discharge in nearby river(s)/pond(s).
5. The depth of the land fill site shall be decided based on the ground water table at the site.
6. The Company shall ensure proper handling of all spillages by introducing spill control procedures for various chemicals.
7. All leachates arising from premises should be collected and treated in the ETP followed by RO. RO rejects shall be evaporated in MEE. Toxicity Characteristic Leaching Procedure (TCLP) test to be performed on leachates.
8. The Company shall review the unit operations provided for the treatment of effluents, specially the sequencing of MEE after tertiary treatment, the source of permeate when no R.O. is recommended and the treatment of MEE condensate. The scheme for treatment of effluents shall be as permitted by the Pollution Control Board under the provisions of Consent to Establish.
9. Scrubber water, leachate water or wheel wash effluent shall be treated in the effluent treatment plant followed by RO to achieve Zero Liquid Discharge (ZLD).
10. Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.
11. Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused within the project.
12. A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.
13. Rain water runoff from hazardous waste storage area shall be collected and treated in the Effluent Treatment Plant.

D. Noise monitoring and prevention:

1. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Office of the MoEF&CC and SEIAA, Odisha as a part of six-monthly compliance report.

Secretary, SEAC

2. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.
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.

E. Energy Conservation measures:

1. Energy conservation measures like installation of LED/CFLs/TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning.

F. Waste management:

1. The TSDF should only handle the waste generated from the member units.
2. Periodical soil monitoring to check the contamination in and around the site shall be carried out.
3. No non-hazardous wastes, as defined under the Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016, shall be handled in the premises.
4. The Project proponent shall not store the Hazardous Wastes more than the quantity that has been permitted by the CPCB/SPCB.
5. The solid wastes shall be segregated, managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
6. A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
7. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly confirm to the Construction and Demolition Rules, 2016.

G. Greenbelt:

1. Green belt shall be developed in an area as provided in project details, with native tree species in accordance with Forest Department. The greenbelt shall inter alia cover the entire periphery of the project site.
2. Top soil shall be separately stored and used in the development of green belt.

H. Public Hearing and Health Issues

1. Traffic congestion near the entry and exit points from the roads adjoining the project site shall be avoided. Parking should be fully internalized and no public space should be utilized.
2. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
3. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
4. Occupational health surveillance of the workers shall be done on a regular basis.

I. Corporate Environment Responsibility:

1. The project proponent shall comply with the provisions contained in MoEF&CC, Govt. of India OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha 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 Regional Office of MoEF&CC, Bhubaneswar along with the Six Monthly Compliance Report.
5. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

Secretary, SEAC

J. Miscellaneous:

1. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
2. 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 criteria pollutant levels namely; PM_{2.5}, PM₁₀, 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.
7. The project proponent shall inform the Regional Office of MoEF&CC, Bhubaneswar as well as the SEIAA, Odisha, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
8. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
9. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
10. No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Odisha.

Secretary, SEAC

11. 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.
12. The SEIAA, Odisha may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
13. The SEIAA, Odisha reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
14. The Regional Office of 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.
15. 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 Trans-boundary 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/NGT and any other Court of Law relating to the subject matter.
16. 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.

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR CONSTRUCTION OF INTER-STATE BUS TERMINAL (ISBT) AT BARAMUNDA, BHUBANESWAR, ODISHA OF BHUBANESWAR DEVELOPMENT AUTHORITY WITH A TOTAL BUILT UP AREA 28, 124 M²

PART A – GENERAL CONDITIONS:

(I) Pre- Construction Phase:

1. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel (kerosene/gas) for cooking, safe drinking water, medical health care, etc. The housing may be in the form of temporary structures to be removed after completion of the project.
2. Provision of drinking water, waste water disposal, solid wastes management and primary health facilities shall be ensured for labour force. Proper sanitation facilities shall be provided at the construction site to prevent health related problems. Domestic as well as sanitary wastes from construction camps shall be cleared regularly.
3. Adequate safety measures shall be adopted for the construction workers.
4. All the labourers to be engaged for construction works shall be screened for health and adequately treated before issue of work permits. The contractor shall ensure periodic health check-up of construction workers.
5. Fencing of the project boundary shall be done before start of construction activities.
6. Use of energy efficient construction materials shall be ensured to achieve the desired thermal comfort.
7. Use of fly ash based bricks blocks/tiles/products shall be explored to the maximum extent possible.
8. Layout of proposed buildings and roads within premises etc. shall be made in such a way that it shall cause minimum disturbance to existing flora and fauna. Appropriate green belt shall developed to compensate the habitat loss of tree cutting (if any) from competent authority as per prevailing Act/Rules. The exotic species existing within the existing premises, if any, shall be protected. The greening programme shall include plantation of both exotic and indigenous species.
9. Dedicated pedestrian paths shall be provided along the proposed Buildings. Appropriate access shall be provided for physically challenged people in the Pedestrian Paths.
10. The design of service roads and the entry and exit from the buildings shall conform to the norms & standards prescribed by the State Public Works Department.
11. The road system shall have the road cross sections for general traffic, exclusive ways for public mass transport (bus) system, pedestrian paths and ways, utility corridors and green strip.
12. Topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site. Balance topsoil should be disposed at in planned manner for use elsewhere adequate erosion and sediment control measures to be adopted before ensuing construction activities.

13. Prior permission should be obtained from the competent authority for demolition of the existing structure, if any. Waste recycling plans including top soil should be developed prior to beginning of demolition and construction activity. The plans should identify wastes to be generated and designate handling, recycling and disposal method to be followed.
14. Disposal of muck including excavated material during construction phase should not create any adverse effects in the neighbourhood and the same shall be disposed of taking the necessary precautions for general safety and health aspects.
15. The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which should be in the vernacular language, informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Environment Impact Assessment Authority, Odisha. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional Office of MoEF&CC, Bhubaneswar.
16. Risk assessment study along with Disaster Management Plan (DMP) shall be prepared. The mitigation measures for disaster prevention and control shall be prepared and get approval from competent authority. All other statutory clearances / licenses / permissions from concerned State Governments Departments, Boards and Corporations shall be obtained for directions issued by Central Government / State Government, Central Pollution Control Board / State Pollution Control Board, Odisha.
17. Baseline Environmental Condition of Project area i.e. Monitoring of AAQ as per NAAQS 2009, Monitoring of Ambient Noise Level & Analysis of Ground Water Samples should be conducted and report should be submitted to State Environment Impact Assessment Authority (SEIAA), Odisha and State Pollution Control Board, Odisha prior to start of construction activities.

(II) Construction Phase:

1. It shall be ensured that the construction debris is properly stored on the site prior to disposal. Such requirements shall be made part of the contractor agreement.
2. All the top soil excavated during construction activities shall be stored for use in horticulture / landscape development within the project site. Proper erosion control and sediment control measures shall be adopted.
3. Earth material generated from excavation shall be reused to the maximum possible extent as filling material during site development. The construction debris and surplus excavated material shall be disposed of by mechanical transport through the BMC or any other authorized agency.
4. Disposal of muck, including excavated material during construction phase, shall not create any adverse effects on the neighbouring communities and shall be disposed of taking the necessary precautions for general safety and health aspects.
5. Low Sulphur diesel generator sets should be used during construction phase. Diesel generator sets during construction phase shall have acoustic enclosures and shall conform to Environment (Protection) Rules, 1986 prescribed for noise emission standards.

6. All vehicles/equipment deployed during construction phase shall be ensured in good working condition and shall conform to applicable air and noise emission standards. These shall be operated only during non-peaking hours.
7. Ambient noise levels shall conform to the standards prescribed by MoEF&CC, Govt. of India.
8. The protective equipment such as nose mask, earplugs etc. shall be provided to construction personnel exposed to high noise levels.
9. Construction spoils, including bituminous material and other hazardous materials including oil from 'construction equipment must not be allowed to contaminate soil/ground water. The dumpsites for such material must be secured so that they shall not leach into the ground water.
10. Proper and prior planning, sequencing and scheduling of all major construction activities shall be done. Construction material shall be stored in covered sheds. Truck carrying soil, sand and other construction materials shall be duly covered to prevent spilling and dust emission. Adequate dust suppression measures shall be undertaken to control fugitive dust emission. Regular water sprinkling for dust suppression shall be ensured.
11. Use of Ready-Mix concrete is recommended for the project.
12. Accumulation/stagnation of water shall be avoided ensuring vector control.
13. Regular supervision of the above and other measures shall be in place all through the construction phase so as to avoid disturbance to the surroundings.
14. Water during construction phase should be preferred from Municipal supply.
15. All directions of the Airport Authority, Director of Explosives and Fire Department etc. shall be complied.
16. Unskilled construction labourers shall be recruited from the local areas.
17. Provisions shall be made for the integration of solar water heating system.
18. Provision of vermin-composting for the biodegradable solid wastes generated from the proposed extension buildings as well as the large amount of biomass that shall be available from the tree plantation shall be made.
19. Monitoring of ground water table and quality once in three months shall be carried out. Construction of tube wells, bore wells shall be strictly regulated.
20. Permeable (porous) paving in the parking areas, and walkways should be used to control surface runoff by allowing storm water to infiltrate the soil and return to ground water.
21. All intersections shall be designed and developed as roundabouts.
22. All utility lines (electricity, telephone, cable, water supply, sewage drainage, etc. shall be laid below ground level. Ducts shall be provided along and across the roads to lay the utility lines. Major trunk (water/sewerage) lines are to be laid along the utility corridor.
23. The road drainage shall be designed to enable quick runoff of surface water and prevent water logging.

24. Adequate provision shall be made to cater the parking needs. Parking spaces standards as given in "Manual on Norms and Standards for Environmental Clearance of Large Construction Projects" issued by MoEF&CC, Government of India shall be adopted.
25. Rest room facilities shall be provided for service population.
26. Monitoring of AAQ as per NAAQS 2009, Monitoring of Ambient Noise Level & Analysis of Ground Water Samples, should be conducted and report should be submitted on monthly basis to SEIAA, Odisha & SPCB, Odisha.

(III) Water Body Conservation:

1. Water body falling within premises (if any) shall not be lined or no embankment shall be cemented. The water bodies, if any, shall be kept in natural conditions without disturbing the ecological habitat.
2. Improvement or rehabilitation of existing nail as (if any) shall be carried out without disturbing the ecological habitat.

(IV) Post Construction/Operation Phase:

1. The environmental safeguards and mitigation measures contained in the application shall be implemented in letter and spirit.
2. All the conditions, liabilities and legal provisions contained in the Environmental Clearance shall be equally applicable to the successor management of the project in the event of the project proponent transferring the ownership, maintenance of management of the project to any other entity. Ground water shall not be abstracted without prior permission from the competent authority.
3. The storm water management plan shall be implemented in such a manner that the storm water is discharged through an existing dedicated Storm Water Outfall only.
4. The height of the stack of the DG sets should be as per norms of Central Pollution Control Board (C.P.C.B.).
5. Medical (First-Aid) facility must be provided for visitors & employees. Para-medical staff should be attached as Medical facility provider.
6. Plantation along the side of the buildings & roads and in the open spaces shall be developed to act as sinks of air pollutants. The plantation of trees shall be completed in the construction stage. The plantations shall consist of mixture of available indigenous, fast growing and sturdy species of trees, shrubs and herbs. Preferential plantation of flowering trees with less timber and fruits value shall be carried out.
7. Two chambered container or two separate containers (one for recyclable wastes and other for all organic and compostable wastes) shall be placed at appropriate distance on the road sides and inside the building. Covered dustbin / garbage collector inconvenient places to collect the Municipal solid wastes shall be provided.
8. Proper composting / vermi-composting of municipal solid wastes shall be carried out. All municipal solid wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Solid Waste Management Rules, 2016.

9. The use of hand gloves, shoes and safety dress for all waste collectors and sorters shall be enforced.

(V) Miscellaneous:

1. The project proponent should implement Environmental Monitoring Programme as per details submitted in EMP.
2. No expansion / modification activity should be carried out obtaining prior Environmental Clearance as per EIA Notification, 2006.
3. Monitoring of AAQ as per NAAQS 2009, Monitoring of Ambient Noise Level & Analysis of Ground Water Samples, Monitoring of Stock Emissions & Testing of emission from DG sets should be conducted and report should be submitted on monthly basis to SEIAA, Odisha & OSPCB, Bhubaneswar.
4. It shall be mandatory for the project management to submit six (06) monthly compliance reports of the stipulated prior Environmental Clearance terms and condition in hard and soft copies to the regulatory authority concerned SEIAA, Odisha, Regional Office of MoEF&CC, Bhubaneswar & OSPCB, Bhubaneswar.

PART – B - SPECIFIC CONDITIONS

(I) Pre-Construction Phase:

1. Project Proponent should obtain prior Consent to Establish (NOC) under Section 25 & 26 of the Water (Prevention & Control of Pollution) Act' 1974 and under Section 21 of the Air (Prevention & Control of Pollution) Act' 1981 from State Pollution Control Board before start of construction activities.
2. Project Proponent should obtain prior permission from concerned authority for ground water withdrawal if applicable.
3. Construction shall conform to the requirements of local seismic regulations. The project proponent shall obtain permission for the plans and designs including structural design, standards and specifications of all construction work from concerned authority.
4. Use of energy efficient construction materials to achieve the desired thermal comfort shall be incorporated. The desired level of roof assembling "U" factor and insulation "R" value must be achieved. Roof assembling "U" factor for the top roof shall not exceed 0.4 watt/sq.m./degree centigrade with appropriate modifications of specification and building technologies. The provisions of National Building Code 2005 shall be strictly followed.
5. Street / Corridor lighting shall be energy efficient. The High Pressure Sodium Vapour (HPSV) Lamps & Compact Fluorescent Lamps (CFL) along Building premises shall be provided. High intensity, high mast lights to be installed at few strategic points. Solar energy may be used for outdoor lighting.
6. Reduction of hard paving-onsite (Open area surrounding all buildings) and/or provision of shades on hard paved surfaces to minimize heat island effect and imperviousness of the site should be undertaken.
7. All proposed air / conditioned buildings should follow the norms proposed in the ECBC regulations framed by the Bureau of Energy Efficiency.

Secretary, SEAC

8. Monitoring of AAQ as per NAAQs 2009, Monitoring of Ambient Noise Level & Analysis of Ground Water Samples, Monitoring of Stack Emissions from DG sets should be conducted, and reports should be submitted on monthly basis to SPCB.

(II) Construction Phase:

1. All the conditions laid down by SPCB should be strictly complied with during entire construction cycle of the Project.
2. The water treatment plant shall be provided for treatment of water. The treatment shall include screening, sedimentation, filtration and disinfections. Appropriate arrangement shall be made for treatment and reuse of backwash water of filtration plant.
3. Project proponent shall provide adequate measuring arrangement at the inlet point of water uptake and at the discharge point for the measurement of water utilized in different categories and monitoring daily water consumption.
4. Regular water sprinkling shall be done all around the site to minimize fugitive dust emission during construction activities.
5. Rain water harvesting structures should be provided as per submitted Plan.
6. Project proponent shall install one continuous Ambient Air Quality Monitoring Station within the premises and meet its Operation and maintenance requirements for 5 Years.

(III) Post Construction / Operation Phase:

1. Project Proponent should obtain prior consent to operate under Air Act, 1981 & Water Act, 1974 from State Pollution Control Board before commissioning of the project.
2. Water saving practices such as usage of water saving devices/fixtures, low flushing systems, sensor based fixtures, auto control walls, pressure reducing devices etc. should be adopted.
3. Water budget should be adopted as per the plan submitted in the supplementary Form IA & EMP.
4. All the generated domestic effluent should be sent to ETP/STP for treatment & further recycling & reuse.
5. Treated water recovered from STP would be used for flushing the toilets, gardening purpose, make up water in air conditioning systems, etc. As proposed, Fluidized Bed Reactor (FBR) type sewage treatment plant should be installed. The Sewage Treatment Plant shall be ensured before the completion of Building Complex.
6. Rainwater from open spaces shall be collected and reused for landscaping and other purposes. Rooftop rainwater harvesting shall be adopted for the proposed Buildings. Every building of proposed extension project shall have rainwater- harvesting facilities. Before recharging the surface runoff, pre-treatment must be done to remove suspended matter and oil and grease.
7. Municipal solid wastes generated in the proposed extension buildings shall be managed and handled in accordance with the Solid Waste Management Rules, 2016.

8. All hazardous wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and amended thereafter.
9. Recycling of all recyclable wastes such as newspaper, aluminium cans, glass bottles, iron scrap and plastics etc. shall be encouraged through private participation. Project proponent shall take appropriate action to ensure minimum utilization of plastic carry bags and plastic small containers etc. within the proposed buildings shall be ensured.
10. Project proponent shall operate and maintain the sewage collection /conveyance system, sewage pumping system and sewage treatment system regularly to ensure the treated water quality within the standards prescribed by MoEF&CC, Government of India.
11. Properly treated and disinfected (Ultra Violet Treatment) sewage shall be utilized in flushing the toilets, gardening purpose, make up water in air conditioning systems etc. Non-mixing of faecal matter with the municipal solid wastes shall be strictly ensured.
12. Non-mixing of sewage/sludge with rainwater shall be strictly ensured.
13. Noise barriers shall be provided at appropriate locations so as to ensure that the noise levels do not exceed the prescribed standards. D.G. Sets shall be provided with necessary acoustic enclosures as per Central Pollution Control Board norms.
14. Back up supply shall be based on natural Gas/cleaner fuel subject to their availability.
15. The project proponent shall resort to solar energy at least for street lighting and water heating for Proposed Building Complex, gardens/park areas.
16. During maintenance, energy efficient electric light fittings & lamps - low power ballasts, low consumption high power luminaries, lux level limiters & timers for street lighting shall be provided.
17. A report on the energy conservation measures confirming to energy conservation norms finalized by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, "R" and "U" factors etc.
18. Monitoring of AAQ as per NAAQS 2009, Monitoring of Ambient Noise Level ec
19. Analysis of Ground Water Samples, Monitoring of Stack Emissions from DG sets & Testing of Untreated & treated effluent samples of STPs should be conducted and report should be submitted on monthly basis to SPCB.

(IV) Miscellaneous:

1. All the conditions laid down by State Pollution Control Board (SPCB) should be strictly complied with during entire life cycle of the project.
2. Monitoring of Ambient Noise Level & Analysis of Ground Water Samples, Monitoring of Stack Emissions from DG Sets & Testing of Untreated & treated effluent samples of STPs should be conducted and reports should be submitted on monthly basis to SPCB.
3. The project authorities shall ensure that the treated effluent and stack emissions from the unit are within the norms stipulated under the EPC rules or SPCB whichever is more stringent. In case of process disturbances / failure of pollution control equipment adopted by the unit, the respective unit shall be shut down and shall not be restarted until the control measures are rectified to achieve the desired efficiency.

4. The overall noise levels in and around the project area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules 1989 viz. 75 DBA (day time) and 70 DBA (night time).
5. The project authorities shall provide requisite funds for both recurring and non- recurring expenditure to implement the conditions stipulated by SEIAA, Odisha with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.
6. Plantation along the side of the buildings & roads and in the open spaces shall be developed to act as sinks of air pollutants. The plantation of trees shall be completed in the construction stage. The plantations shall consist of mixture of available indigenous, fast growing and sturdy species of trees, shrubs. 20% of the total plot area shall be used for plantations.
7. Whenever developer will hand over building to the society, the developer must mention in the agreement or sale deed that 20% green belt area of total plot area should mentioned & Environmental Conditions given by SEIAA, Odisha has to be complied.
8. Preliminary Medical facility and Ambulance services shall be provided.
9. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parishad / 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.
10. The funds earmarked for the environmental protection measures shall not be diverted for other purposes.
11. Explore the possibility of separation of Inter-State and Intra-State Bus Terminal to avoid congestion and confusion amongst the passengers.
12. Buses having residence time ≥ 4 hours shall be parked at a different site as the available area of 15.5 acre s is not sufficient.
13. Due to non-availability of land and saturation of the present site in the proposed site, Govt. of Odisha shall be advised to find out a suitable area for the ISBT in future.
14. In case of any changes in the scope of the project, the project shall require a fresh appraisal by the SEAC/SEIAA.
15. The SEAC/SEIAA, Odisha will have the right to amend the above conditions and 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.
16. Any appeal against this Environmental Clearance shall lie with the National Green Tribunal (NGT), if preferred within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.

TERMS OF REFERENCE (ToR) FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT FOR M/S. ADISH MINERALS PVT. LTD. FOR PROPOSED CHROME ORE BENEFICIATION PLANT OVER AN AREA 13.43 ACRES OF CAPACITY 1, 20, 000 TPA THROUGHPUT AT MOUZA- BAUNSAMULI, THANA BADACHANA, DISTRICT- JAJPUR.

1. The alternate sites considered, the relative merits and demerits and the reasons for selecting the proposed site for the Beneficiation Plant should be indicated.
2. Details of the technology and process involved for beneficiation should be given.
3. Location of the proposed Plant w.r.t. the source of raw material and mode of transportations of the ore from mines to the beneficiation plant should be justified.
4. Treatment of run of mine (ROM) and or of the fines/waste dump should be spelt out.
5. Estimation of the fines going into the washings should be made and its management described.
6. Details of the equipment, settling pond etc. should be furnished.
7. Detailed material balance should be provided.
8. Sources of raw material and its transportation should be indicated. Steps proposed to be taken to protect the ore from getting air borne should be brought out.
9. Management and disposal of tailings and closure plan of the tailing pond, if any after the project is over, should be detailed in a quantified manner.
10. The water requirement for the project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the project should also be indicated.
11. A copy of the document in support of the fact that the Proponent is the rightful lessee of the unit should be given.
12. All documents including EIA and public hearing should be compatible with one another in terms of the production levels, waste generation and its management and technology and should be in the name of the lessee.
13. All corner coordinates of the Unit, superimposed on a High Resolution Imagery/Toposheet should be provided. Such an Imagery of the proposed Unit should clearly show the land use and other ecological features of the study area (core and buffer zone).
14. Issues relating to Safety should be detailed. The proposed safeguard measures in each case should also be provided. Disaster management plan shall be prepared and included in the EIA/EMP Report.
15. The study area will comprise of 10 km zone around the Plant.

16. Cumulative impact study of both Beneficiation Plant with suggested mitigation measures as per the study should be described.
17. Option to provide only silo for storage of minerals instead of open stacking to avoid fugitive dust should be explored and arrangements finalized justified.
18. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
19. Details of the land for any Over Burden Dumps outside the lease, such as extent of land area, distance from lease, its land use, R&R issues, if any, should be given.
20. A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the Project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
21. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
22. A study shall be got done to ascertain the impact of the Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigative measures required, should be worked out with cost implications and submitted.
23. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
24. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.

Secretary, SEAC

25. Proximity to Areas declared as 'Critically Polluted' shall also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB/CPCB shall be secured and furnished to the effect that the proposed activities could be considered.
26. R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects, should be discussed in the report.
27. One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the unit in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.
28. Air quality modelling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modelling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
29. The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
30. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be secured and copy furnished. .
31. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
32. Impact of the project on the water quality, both surface and groundwater should be assessed and necessary safeguard measures, if any required, should be provided.

33. Details of any stream, seasonal or otherwise, passing through the project area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
34. A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the project. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to the pollution.
35. Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered.
36. Details of the onsite shelter and facilities to be provided to the workers should be included in the EIA report.
37. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area should be detailed.
38. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
39. Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
40. Public hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
41. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.
42. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
43. A brief background of the Project, its financial position, Group Companies and legal issues etc. should be provided with past and current important litigations if any.
44. Benefits of the Project, if the project is implemented should be outlined. The benefits of the projects shall clearly indicate environmental, social, economic, employment potential, etc.

45. Besides the above, the below mentioned general points are also to be followed:-
- (a) Executive Summary of the EIA/EMP Report
 - (b) All documents to be properly referenced with index and continuous page numbering.
 - (c) Where data are presented in the report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - (d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the project.
 - (e) Where the documents provided are in a language other than English, an English translation should be provided.
 - (f) The Questionnaire for environmental appraisal of project as devised earlier by the Ministry shall also be filled and submitted.
 - (g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should also be followed.
 - (h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered.
 - (i) Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation. As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified Report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project by the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
46. **THE TORS PRESCRIBED SHALL BE VALID FOR A PERIOD OF THREE YEARS FOR SUBMISSION OF THE EIA-EMP REPORTS ALONG WITH PUBLIC HEARING PROCEEDINGS (WHEREVER STIPULATED) AS PER MOEF&CC, GOVT. OF INDIA O.M. NO. J-11013/41/2006-IA-II(I)(P), DATED 07.11.2014.**