PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE, ODISHA HELD ON 29TH APRIL, 2024

The SEAC met on 29th April, 2024 at 04:00 PM by Virtual mode (VC) through video conferencing in Google Meet under the Chairmanship of Sri Shashi Paul. The following members were present in the meeting.

1.	Sri Shashi Paul	_	Chairman (through VC)
2.	Dr. K. Murugesan	-	Member Secretary
3.	Dr. Chittaranjan Panda	-	Member (through VC)
4.	Prof. (Dr.) H.B. Sahu	-	Member (through VC)
5.	Sri Jayant Das	-	Member (through VC)
6.	Er. Fakir Mohan Panigrahi	-	Member (through VC)
7.	Prof. (Dr.) B.K. Satapathy	-	Member (through VC)
8.	Dr. K.C.S Panigrahi	-	Member (through VC)
9.	Prof. (Dr.) Abanti Sahoo	-	Member (through VC)
10.	Dr. Ashok Kumar Sahu	-	Member (through VC)
11.	Dr. Rabinarayan Patra	-	Member (through VC)
12.	Er. Kumud Ranjan Acharya	a -	Member (through VC)

CONSIDERATION OF OLD PROPOSALS (COMPLIANCE RECEIVED):

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

ITEM NO. 01

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S MISRILALL MINES PRIVATE LIMITED FOR ESTABLISHMENT OF 30 TPH CAPACITY CHROME ORE BENEFICIATION PLANT HAVING THROUGHPUT OF 198000 TPA AND ANNUAL CHROME CONCENTRATE PRODUCTION OF 97000TPA BASED ON AVERAGE GRADE 30% CR₂O₃, AT: PANKAPAL, VILLAGE: NIMAPALI, TAHASIL: SUKINDA, DISTRICT: JAJPUR OF SRI UJJWAL KUMAR SINHA - EC

- 1. This proposal is for Environmental Clearance of M/s Misrilall Mines Private Limited for establishment of 30 TPH capacity Chrome Ore Beneficiation Plant having throughput of 198000 TPA and annual Chrome Concentrate production of 97000TPA based on average grade 30% Cr₂O₃, At: Pankapal, Village: Nimapali, Tahasil: Sukinda, District: Jajpur of Sri Ujjwal Kumar Sinha.
- 2. Category: The project falls under category "B" or activity 2 (b) Mineral Beneficiation projects under EIA Notification dated 14th September 2006 as amended from time to time.
- 3. TOR details: Terms of Reference Letter issued by SEIAA, Odisha vide letter no:-5081/SEIAA with File no.- SIA/OR/MIN/72028/2022 dated 02.08.2022.

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- 4. Public hearing details: The Public hearing was held on the scheduled date i.e. 28th Feb 2023 near JCDL Campus near JCD-NIMZ, Pankapal, Kalinga Nagar under Sukinda Tahasil of Jajpur District, Odisha. Issues raised during the public hearing area employment, peripheral development, plantation, ground water depletion and environmental pollution. Total budget incurred for the action plan of public hearing is 13.15 lakhs.
- 5. List of Statutory Clearances obtained earlier -
 - a) Total Land of 2.22 Acres already acquired with patta.
 - b) NOC from CGWA: CGWA/NOC/IND/ORIG/2022/16552 on dated 26/09/2022
 - c) Obtained Non availability of surface water certified by state public Health Department.
 - d) Obtained Letter from DFO to PCCF for diversion of forest area about 0.9 Ha. for proposed COB Plant vide letter no. 3767/5F on dated 06.05.2023.
 - e) Obtained letter from Forest Range Officer (Tomka Range) vide letter no: 761 on dated 02/06/2023 regarding absence of schedule-1 species of wild animal in and around the lease hold area.
- 6. Location and Connectivity The proposed project will be established near the Ferro Chrome Plant of M/s. Misrilall Mines Pvt. Ltd. at village Pankapal, PS- Kalinga Nagar, Tehsil Sukinda in Jajpur district of Odisha State. The geo coordinates of the project are Latitude 20° 55'10.88" N and Longitude 86° 00' 45.90" E. The contour varies from 35.8 to 42.4 m MSL and the project falls under Survey of India bearing Topo sheet no. 73L/1, H/13,G/16 & K/4. The requirement of land for the proposed project is 0.9 Ha. It is owned by the Project proponent having Sabik Plot No. 1498/3243. It is a patta land having kissam as non-forest (Pathara Khani) as per HAL and as per Sabik comparison, the proposed plot no. 1498/3243 is comes under jungle kisam. Nearest Railway Station is Jajpur Road Railway Station at a distance of 12 Kms from the Project site. Nearest Airport is Biju Pattnaik International Airport at 150kms.Nearest Major Habitation is Jhakhapura village. Nearest NH/ Highway is NH 53. Nearest RF/PF is Dangadi Protected Forest (Open Mixed Jungle) at 8.27 Km, Sunajhara PF Badasila (Open Mixed Jungle) at 5.31 Km and Barhagaria (Open Jungle) at 7.53Km. Nearest rivers are Brahmani River at 3.39 km, Pandara Nadi at 5.53 km and Ganda Nadi at 8.30 km. The area falls in Seismic Zone III which is under Moderate Damage Risk Zone.
- Baseline study conducted: Baseline study was conducted within the period of March to May 2022.

Summary of Ambient Air monitoring: -

- a) Particulate matter (PM₁₀): The maximum value for PM was 91.8 μg/m³ observed at AAQ-8. The reason for high value may be due to presence of Bus stop and industrial area. The minimum value was 41.6 μg/m³ observed at AAQ-5 as there is no major activity nearby. The average value ranged from 80.7 μg/m³ to 43.7 μg /m³.98th Percentile value ranged from 45.6 μg/m³ to 91.8 μg/m³.
- b) Particulate Matter (PM_{2.5}): The maximum value observed was $55.1\mu g/m^3$ at AAQ-8. Reason for the high value may be due to presence of bus stop and commercial area.

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- Minimum value observed was 25 μg/m³ at AAQ-5. Average value ranged ¿26.2 μg/m³ to 38,77 μg/m³. 98th percentile ranged from 27.4 μg/m³ to 55.1 μg/m³.
- c) Sulfur dioxide (SO₂): The maximum value observed was 15.6 μ g/m³ at AAQ- 6 whereas minimum value of 4.1 μ g/m³ was observed at AAQ-5. The limits were well within the NAAQs standards. Average value ranged from 4.8 μ g/m³ to 8.11 μ g/m³. 98th Percentile value ranged from 5.6 μ g/m³ to 15.6 μ g/m³.
- d) Oxides of Nitrogen (NOx): The maximum value observed was at 25.8 μ g/m³ at AAQ-6 and the minimum value of 8.1 μ g/m³ was observed at AAQ-5. The limits were well within the NAAQs standards. Average value ranged from 9.2 μ g/m³ to 13.78 μ g/m³. 98th percentile ranged from 10.8 μ g/m³ to 25.8 μ g/m³.
- e) Carbon Monoxide (CO): The maximum value of 0.88 mg/m³ observed at AAQ-6. The minimum value of 0.11mg/m³ was observed at AAQ-4. Average value ranged from 0.13 mg/m³ to 0.32 mg/m³. 98th Percentile value ranged from 0.16 mg/m³ to 0.88 mg/m³.
- f) Ambient Noise: The summary of the Ambient Noise Monitoring Result shows the Noise level within the permissible limits for all the locations. Ambient noise ranges from 43.6 dB(A) to 69.9 dB(A) during day time and 33.8 to 64.8 dB(A) during night time.
- g) Surface Water: The surface water quality parameters were analyzed at eight locations for three months i.e. from March 2022 to May 2022. The pH value ranged from 7.33 to 7.81, TDS value ranged from 144 to 612.Colour ranges < 5 Hazen to 10 Hazen. Electrical conductivity value is confined between 184 μS/ to 1511μS/cm. Dissolved oxygen ranging from 6.1 to 7.4 mg/l. Highest turbidity value is 8.1 NTU and lowest is 4.1 NTU. Chloride content Highest value is 408.8 mg/l and lowest is 8.8 mg/l. The TDS value 612.2 mg/l to 144 mg/l. Oil and grease levels 0.51 mg/l to lowest 0.084 mg/l. Biological Oxygen Demand (BOD) is within the permissible limits in and varies between 1.8 mg/l (SW-1) to 2.6 mg/l (SW-8). Chemical Oxygen Demand (COD) varies from 9.6 mg/l to 16.4 mg/l. All heavy metals like Arsenic, Lead, etc. are below detectable levels. Quality wise surface water is fit for regular use but for drinking purpose it needs to be treated.
- h) Ground water: The odour and taste at all the locations are agreeable. The maximum turbidity being 3.2 NTU and minimum turbidity is 1.2 NTU. The pH value varies from 6.68 to 7.6. The Iron content is high 0.295 mg/l & minimum is 0.028 mg/l. Total hardness ranges from 108 mg/l to 130 mg/l. Chloride content ranges from 10 mg/l to 44 mg/l. TDS ranges from 2269 mg/l to 248 mg/l. Heavy metals such as Lead, Arsenic etc. is below BDL at all the locations. These values shows that ground water is safe for domestic purpose in surroundings of the project area, but for safer side it is recommended to treat the water before drinking use.
- i) Soil Environment: The color of the soil in the study region is mainly of red and reddish brown with acidic type. The pH value ranges were from 6.24 to 6.84. The region has soil texture of sandy loamy type which indicated that sand content of the soil is higher and dominant of other components of the soil. Conductivity ranges from 132.9 µS/cm to 192.6 µS/cm. At the project location the soil is Sandy Loam and at all the other monitoring locations the soil is sandy loam. Porosity of the soil at all locations is observed to be in

- between 50%- 58%. Moisture content is found to be in between 5.2% to 8.6 %. Chloride ranges from 124 mg/kg to 166 mg/kg. Total potassium ranges from 416.2 mg/kg to 489.2 mg/kg. Nitrogen content varies from 124.8 mg/kg to 274.8 mg/kg. Organic carbon varies from 0.66 % to 0.91 %.
- j) Ground Water Level in the Buffer Zone: The pre-monsoon depth of water level in the study area varies from 4.46 mbgl at Jenapur to a maximum of 9.47 mbgl at Hatibari with the average of around 6.59 mbgl. The post-monsoon depth of water level in the study area varies from 1.41 mbgl at Duburi to a maximum of 3.63 mbgl at Danagadi with the average of around 2.55 mbgl. The seasonal fluctuation of depth to water level ranges from 2.87 m at Jenapur to a maximum of 6.94 m at Ambasar with an average of around 4.04 m. The entire area shows a rising trend.
- 8. Raw material requirement: The basic raw material is Low grade Chrome Ore which will be sourced from Odisha Mining Corporation (for which we have obtained necessary registration from OMC) and also from other mining resources from India and abroad. The raw material required for the project is low grade chrome ore having chromium content ranging from 20 to 40 % Cr2O3.
- 9. Process description: The Plant is based on gravity separation process with a feeding capacity 30 TPH comprises of feed Hopper, Reciprocating feeder, Primary Jaw Crusher and Hammer Crusher, Grinding Unit like Rodmill, conveyors, single deck Wet screening unit, and processing unit consist of slurry pumps, water pumps, stub cone and long cone hydro cyclones, dewatering cone, Fluidised Bed Concentrator (FBC), Rougher spirals, Cleaner Spirals, Tailings Scavanger Spirals and Tailings Cleaner Spirals, Shaking Table(Tripple deck) stock piling areas, Ground water reservoir, Zero discharge Tailings Pond.
- 10. Standard procedure: Chemical dosing system will be there near the 1st settling tank and dosing done according to requirement at tank No-1. The water of the COB process and tailing may hazardous in nature due to the presence of chromium. If hexavalent Chromium factor arises, then it is to be neutralized by adding a ferrous sulfate solution to the process to detoxify hexavalent chromium and convert into trivalent chromium which is not harmful. Ferrous iron added for reduction of hexavalent chromium is being oxidized to ferric iron and subsequently precipitated as Ferric Hydroxide. Polyelectrolyte is added to enhance settling of the precipitate and suspended solids.
- 11. Total water requirement and waste water management: About 90 KL/day of water will be required for the process as make up water which will be drawn from Ground water. Water requirement of the process (Make up water) will be 80 KLD, Dust suppression and other necessary work 5 KLD, and about 5KLD will be used for drinking water. The company obtained necessary approval from Central Ground Water Board to draw 95 KLD Water.

SI.	PARTICULARS	QUANTITY	SOURCE
i) 	Process Water Requirement (Ma Up Water)	ke 80 KLD	Ground water
ii)	Dust suppression and oth	er 5 KLD	Ground water/treated

············	necessary work		water
iii)	Drinking Water	5 KLD	Ground water

- 12. Power Requirement and solar power details: The proposed Chrome Ore Beneficiation Plant requires a contract demand of 500 KVA. The existing Ferro chrome plant has a dedicated 132KV Double Circuit line from Old Duburi Substation from an Independent Bay. Power can be obtained from the Ferro Chrome plant substation with necessary statutory permission.
- 13. Rain water harvesting details: The total runoff available from Rooftop will be around 3529 cum/annum, which can be stored in the reservoir pit in the industry premises, and runoff available from road & Paved area will be approx. 3176 cum/annum which will be used to recharge the ground water via recharge pit after treatment.

Location	Area in Sq.m	Rainfall per annum (m)	Runoff coefficient	Total Harvestable quantity (Cu.m)/ Annum	
Corrugated Roof	2385	1.557	0.9	3342.101	
Roof top	150	1.557	0.8	186.84	3529
Paved area and Road	2040	1.557	0.6	1905.768	
other areas	1425	1.557	0.4	887.49	
Green area	3000	1.557	0.2	934.2	3727
Total	9000				

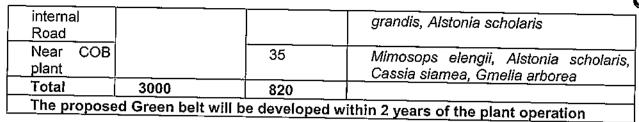
14. Greenbelt Development: Green belt area provided more than 33% of the total plot area (3000 sqm)

The PP initiated the plantation program along the boundary, near the material storage area and office building. About 50 saplings of Teak, Chakunda, Neem, Simarouba, Hibiscus, Nerium etc.

PROPOSED GREEN BELT PLAN

Location	Area Under Plantation	No. of saplings Planted	Species Proposed
Green Belt around the plant boundary	3000 SQM (9m width)	750	Dalbergia sisoo, Cassia siamea, Gmelia arborea, Tectona grandis, Alstonia scholaris, Azadirrachta indica, Bamboo sps, Mangifera indica, Phylanthus emblica, Punica granatum, Psidium guajva, Mimosups elengii, Hibiscus rosa sinensis, Nerium oliander
Open space plantation		20	Cassia siamea, Tecoma sps, Hibiscus sps, Nerium sps, Nyctanthes etc.
Plantation along the		15	Dalbergia sisoo, Cassia siamea, Gmelia arborea, Acacia sps, Tectona

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- 15. Solid waste generation and management: The solid waste generated will be in form of Tailings mud. The quantity of Tailings will be 1,01,000 TPA. Dry cake of COIBP tailing will be utilised to fill up low lying areas of Ferro chrome plant area, subjected the said materials do not contain any toxic materials. Some studies are in pipeline to have commercial use of tailings. Till then, they will be handed over to Ramkey for preservation/disposal of the same. They have registered in Ramkey, since long for such disposal of Hazardous wastes. Other solid wastes like waste cottons, empty bags, rejected gaskets, empty bottles, band jerry canes, steel structures and rejected spares of process equipment etc., generated may have scarp value and shall be disposed off with price realization to the authorized vendors. Used oil will be disposed to authorized reprocessing units having valid authorization from Odisha State Pollution Control Board.
- 16. Manpower requirement: The Plant would operate for about 330 days in a year. The estimated requirement of employment is about 50 employees (direct and indirect) to operate the plant
- 17. Project Cost: The Project cost of the proposed project is Rs. 560 lakhs and EMP cost is Rs.60.00 lakhs (Capital cost) and Rs.12 lakhs (Recuring cost).

SL. NO.	DETAILS	Cost in Lakhs
1	Land Labeling and Civil Construction	100
2	New Equipment procurement	250
3	Electrical and Automation	100
4	Installation and commissioning	50
5	Environment Management Plan	60
	TOTAL	560

Table: EMP cost

S. NO	HEADS	(RS. IN LAKHS)	RECURRING COST PER ANNUM (RS. IN LAKHS)
i)	Air Pollution Control	20.00	
ii)	Water Pollution Control	20.00	
iii)	Environment Monitoring and Management	-	5.00
iv)	Occupational Health	3.00	1.00
v)	Green Belt	2.00	1.00
vi)	Others (House Keeping & Remedial Activities)	5.00	3.00
vii)	Fund allocated for Corporate Environmental Responsibility	10.00	2.00

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	(CER).			
ľ		Total	60.00	12.00

- 18. Environment Consultant: The Environment consultant M/s Visiontek Consultancy Services (P) Ltd., Bhubaneswar along with the proponent made a presentation on the proposal before the Committee.
- 19. The SEAC in its meeting held on dated **01-09-2023** decided to take the decision on the proposal after receipt of the following from the proponent.
- 20. The proponent has uploaded only the Final EIA Report as compliance report in Parivesh 1.0 and has send all the queries raised by the SEAC in seac.odisha.2019@gmail.com which has been verified the same as follows:

SI. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Permission letter from the Water Resources Department for the use of ground water as the water usage is too high i.e., 90 KLD.	About 90 KL/day of water will be required for the process as make up water which will be drawn from Ground water. Water requirement of the process (Make up water) will be 80 KLD, Dust suppression and other necessary work 5 KLD, and about 5KLD will be used for drinking water. The company obtained necessary approval from Central Ground Water Board to draw 95 KLD Water. Already gets the permission from the Water Resources Department for consumption of 90 KLD and in conversion it will be 4.5 KLH which is very negligible for run a plant. Process water Balance table is submitted in compliance report. Process Water Requirement - 80 KL/HOUR Water Reclaimed To Reservoir - 76 KL/HR Make Up Water Requirement - 4 KL/HOUR(80 KLD) We proposed to collect the rain water from roof of office and Plant building to one point within the plant premises. We arrange harvesting/artificial recharge of the rain water. The total Runoff available from Rooftop will be around 600 to 1000 cum/annum, which can be stored in the reservoir pit in the industry premises, and runoff available from road & Paved area will be approx. 4000	Copy of Permission letter from the Water Resources Department for the usage of ground water is not submitted.

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SI.	Information Sought by SEAC	Committee of the state of	
No.		Compliance furnished by the proponent	Views of SEAC
		cum/annum which will be used to recharge the ground water via recharge pit after treatment.	
3.	The proponent shall not use the dry tailing in land fill. The PP shall carry out a mineralogical analysis of the tailings, determine the solutes for the presence of Hexavalent Chromium and carry out sludge quantification and chromium balance and accordingly, decision to be taken for disposal of tailings to TSDF if applicable. If the proponent will store the dry stacking of tailings, then it should be lined by geotextile membrane along with engineering designs so that leaching won't take place. If the Project Proponent determines to use dry tailings for landfill process, then complete description of the whole process to be submitted. If Project Proponent proposes to handover COB tailings to Ramky, then supporting documents to be submitted.	Chromium to Trivalent Chromium will be done by the treatment of Ferrous sulphate solution before the generation of tailing and the tailing will be dumping on impervious ground (Concrete floor) & also its testing will be carried out and its report time to time will be produced to SEAC before disposal. We have obtained permission and made agreement with M/s. RE SUSTAINABLILITY LIMITED (Previous known as M/S RAMKY) for disposal of tailing. A copy of Agreement made with M/S. RE SUSTAINABILITY LIMITED is enclosed in Annexure- Point-2	submitted.
3.		The complete material balance report with Quantity of Concentrate Chromium along with its Quantity of slug or tailing disposal plan of COB plant is submitted in compliance report. Material Balance Flow Chart in the Preliminary Stage which will be operate in the Plant with the following capacity as per the Tailing disposal capacity. Annual Feed (36% Cr ₂ O ₃) 1,71,000 MT Product considering 54% Cr ₂ O ₃ : 102,000 MT Tailing for disposal 9.5 % Cr ₂ O ₃ : 68,000 MT	Material Balance submitted.
4.	tailings of COB plant, as currently 0.9Ha. project land will be insufficient for the landfill purpose of	Limited towards disposal of tailing. In the meantime PP will acquire land nearby for disposal of tailing in proper	For the time being the PP had made Agreement with M/s Re-Sustainability Limited.

			Views of SEAC
Sī. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
5.	The proponent shall furnish detailed land use breakup including greenbelt development and other plant facilities, storage of raw material, product and tailings.	Land Break up of core zone is submitted in compliance report. Based on available data, the land use pattern of the core zone area is observed that land put under existing green belt is about 10 % and proposed green belt will be 23 % of total project area (2.22 Acre). The Plant facilities under defined project area are about 45%. The internal roads are covering an area about 7.59% of total core zone.	_
6.	The Proponent shall provide Surface Runoff Management/Treatment Plan for the whole plant to collect the runoff in monsoon.	Total Harvested rain water calculated – 7256cum	_ `
7.	Copy of application along with supporting documents to know the current status of Forest Clearance applied for 0.9Ha.	Requirement of Land: The requirement of land for the proposed project is 0.9 Ha. It is owned by the Project proponent having Sabik Plot No. 1498/3243. It is a patta land having kissam as non-forest (Pathara Khani) As per HAL and Sabik comparison the proposed plot no. 1498/3243 is comes under jungle kisam. So we are applied for Stage -1 forest clearance. File was forwarded to PCCF by letter no. 3767 on dated 16 May 2023. Copy of application along with supporting documents is attached as Annexure -point-7	of Forest Clearance applied for 0.9Ha File has been forwarded to PCCF by letter no.
8.	Include the compliance of the Specific TOR in EIA and submit the revised EIA report.	Compliance of the Specific TOR in EIA and the revised EIA report is submitted as Annexure-point-8	Final EIA/EMP is submitted.
9.	Traffic study report should be vetted by institute of repute.	Vetted Traffic study report is attached as Annexure-point-9	Traffic Study is not vetted. LOS is found to be "B".
10.	Transport vehicles carrying the materials should be properly covered while plying through the transportation routes.	Whenever transport will be carried out, the carrying material will be covered properly with proper clamping and sealing, so that no material can be disposed or waste outside which will be strictly followed while playing through the transportation route.	-

- CI	Information 0		
SI. No.	Information Sought by SEAC	Compliance furnished by the	Views of SEAC
11.	Avoid recharging of reinveter it	proponent	
i '''	Avoid recharging of rainwater, as it		-
	might contain hexavalent Chromium rather than use the rain water	,	
	collected in plant.	1 1 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	
12.	Previously, there was a Beneficiation	COB process plant operation	
'	Plant in the same location. Present	No Beneficiation plant was there on the	•
	status of that beneficiation plant and	applied location of the Project. During	
ļ	proposed plan for operation of the	Auction process M/s. TATA obtained the lease and the dismantled COB	
	existing Beneficiation Plant.	plant which was functioned previously	
		located at Saruabil Chromite Mines of	
		M/s. Misrifall Mines Pvt. Ltd. at a	
		distance of 40Km from the applied	
		Project area being shifted by	
]	transportation. All machinery, spares	
		and other infrastructures are kept	
		inside the existing Ferro Chrome Plant	
		Boundary.	
13.	Detailed proposal for Zero Liquid	Zero Liquid discharge will be settled	-
	Discharge (ZLD).	through 5 Nos. of Tailing pond followed	
		by the Chemical treatment and Tailings	
		were settled in the Zigzag manner and	
		in the 5 th pond only available of fresh	•
		water which recovered the 95% of feed	
		Process water to the plant and then	
		pumping it to recirculation for operation	
		of the plant. So no water go outside	
ĺ		from the plant. Hence we will get the	
14.	Dronopont was no settle site.	Zero Discharge Liquid (ZLD) water.	
14.	Proponent was mentioning about dry	The Annual Tailing generation will be	-
	storage of tailing which is not the	68000 MT having grade of 9.5 % Cr ₂ O ₃	
	common practice due to associated dusting pollution. Thus, the PP	from Feed quantity1,71,000 MT of	
	needs to provide current tailing	ROM having grade 36 % Cr ₂ O ₃ .	
	ponds dimensions, its capacity,	We have made agreement with M/S. RE SUSTAINABILITY LIMITED	
	current status, proposed tailing pond	RE SUSTAINABILITY LIMITED towards disposal of 60,000MT of dry	
ĺ	dimension, capacity and	tailing. There will be buffer stock of	
	management of tailings with Cr+6.	tailing at plant site for which space	
	All the above to be provided in a	proposed of impervious ground	
	layout and if required a visit could be	18x17Mt i.e., 1260 sq.mt which can	
	made.	accommodate another 10000Mt	
		Approx. of dry tailing considering 5 Mt	
		height.	
15.	Since tailings containing Cr+6 are	As we treated with Chemicals before	•
	hazardous and sizeable quantities	generation of Tailings, so there is less	
ſ	would be generated almost on daily	chance of getting Cr+6 (Hexavalent	
	basis, the plan of dry disposal	Chromium). However, if the tailing	
1	through authorized agency is a not	contains Cr+6, then the same will be	
	viable option. The PP needs to	treated to convert Cr3 and the same	

SI. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	elaborate in case they still plan to do so and the agency capabilities for such wastes, its management in details to be submitted for further verification if required.	will be disposed to Certified Authorized Agency M/s Re Sustainability Limited with whom we have made agreement for disposal of the same.	
16.	Levels of chromium in the ground water samples collected from the study area for preparation of the EIA/EMP report to be recorded and they will be used as references for monitoring possible ground water contamination during operation phase of the project.	Chromium in the ground water will be collected from the study area for preparation of EIA/EMP report to be recorded and they will be used as	-

21. The SEAC observed that the proponent has uploaded only the Final EIA Report in compliance report in online system and has send all the queries raised by the SEAC to the official mail ID - seac.odisha.2019@gmail.com.

Considering the information furnished and the presentation made by the consultant M/s Visiontek Consultancy Services Pvt. Ltd., Patia along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per Annexure — A and following specific conditions. However, the Environmental Clearance shall be issued by the SEIAA, Odisha after receipt of Stage-I Forest Clearance from the proponent as stipulated in MoEF&CC, Govt. of India office memorandum no. J-11013/41/2006-IA.II(I), dated 09.09.2011 and office memorandum no. J-11013/41/2006-IA.II(I), dated 18th May, 2012 and after they upload other documents in online portal.

- The proponent shall obtain permission from the Water Resources Department for the usage of ground water.
- ii) Traffic Study Report shall be vetted by institute of repute.
- iii) The waste water that will be generated from the tailings shall be treated in ETP wherein hexavalent Chromium shall be reduced to trivalent Chromium by dosing it with appropriate standard chemical following due technical procedure.
- iv) The PP shall obtain NOC to use the Panchayat roads from the concerned BDO for transportation of both input materials and finished products including the responsibility of maintaining the road if damaged by such transportation.
- v) As the PP will implement the dry stacking of tailings, there will be trickling down of effluent. Also during rain, the leached effluent from stack will trickling down. PP shall ensure collection of these effluents for treatment with routine analysis to ensure satisfying the standard before it is discharged. All data shall be kept for periodical compliances.
- vi) The PP shall make all efforts to adopt ZLD.

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vii) As per the information given in the final EIA/EMP report the proposed project is for chrome ore (20 to 40% Cr₂O₃) beneficiation plant having throughput of 1,98,000 TPA (30 TPH) for producing chrome ore concentrate (Cr₂O₃ > 50%) of 97000 TPA. The production of chrome ore tailings containing Cr₂O₃ in the range of 8.5 – 9.5% is estimated to be 1,01,000 TPA. The report states that the tailings will be used for constructing roads inside the plant as well as will be given for making highways and the surplus of any will be given M/s RE SUSTAINABILITY LIMITED (Ramkey group). The project proponent has entered into agreement towards disposal of only 60,000MT of dry tailings with M/s RE Sustainability Limited, who is authorised to handle hazardous waste under the "Hazardous and other wastes (Management & Transboundary Movement) Rules 2016." Note under Schedule I of the abovementioned rule states that

"The high-volume low effect wastes such as fly ash, Phosphogypsum, red mud, jarosite, Slags from pyrometallurgical operations, mine tailings and ore beneficiation rejects are excluded from the category of hazardous wastes. Separate guidelines on the management of these wastes shall be issued by Central Pollution Control Board."

The chrome ore tailings being mine tailings M/s RE Sustainability Limited is not authorised to handle the chrome ore beneficiation plant tailings, The project proponent has capacity to hold only 10000 MT tailings inside its plant premises. The project proponent shall prepare a long-term action plan for utilization and management practice of tailings and submit the same before going for construction activities.

viii) Construction of road, highway using chrome ore tailings is not permitted owing to the hazard of hexavalent chromium leaching to adjacent water bodies and the ground water. Entire volume of generated chrome ore tailings needs to be handled, stored and utilised in an environmentally sound manner such as manufacture of chrome bricks for utilisation in industries, long term storage in engineered pits with impermeable lining etc.

ITEM NO. 02

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. LAXMI INFRA VENTURE (P) LTD FOR PROPOSED S1+S2+S3+10 FLOORS (BLOCK-A & B) AND S1+S2+S3+18 FLOORS (BLOCK-C & D) MULTI-STORIED RESIDENTIAL APARTMENT BUILDING (MIG CATEGORY), OVER PLOT NO-2810/15121, 2808/15127, 2807, 2800, 2798 & 2799/15866, OVER AN BUILT-UP AREA –38015.17 M2 KHATA NO-1330/9654 MOUZA-PANDARA, BHUBANESWAR, DIST- KHURDHA BY GPA HOLDER M/S. LAXMI INFRA VENTURES PVT. LTD. REPRESENTED BY SRI RAJESH KUMAR NAYAK - EC

1. This proposal is for Environmental Clearance of M/s. Laxmi Infra Venture (P) Ltd for Proposed S1+S2+S3+10 floors (Block-A & B) and S1+S2+S3+18 floors (Block-C & D) Multi-storied Residential Apartment building (MIG Category), over Plot No-2810/15121, 2808/15127, 2807, 2800, 2798 & 2799/15866, over an Built-up Area – 38015.17 m², Khata no-1330/9654 Mouza-Pandara, Bhubaneswar, Dist- Khurdha by GPA Holder M/s. Laxmi Infra Ventures Pvt. Ltd. represented by Sri Rajesh Kumar Nayak.

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- 2. Category: As per EIA Notification 2006 and subsequent amendment, the proposed project falls under Category B under Item 8(a) Building and Construction projects.
- 3. The proposed project has been approved by Bhubaneswar Municipal Corporation vide letter no 57693 dated 09.12.2022.

Statutory clearances:

S.No.	Particulars	Letter No. / Application No.
1.	Fire Safety Recommendation No. Application No.	RECOMM1204130012023001025 FSR1204130012023000004
2.	NoC from TPCODL	TPCODL letter No. 4308 on dated 07th 2022
3.	NoC for Own Water Supply & Sewerage Connection System	PHD Division, Bhubaneswar letter no. 176 on dated 07/01/2023
4.	Height Clearance NoC from AAI	BHUB/EAST/B/102121/629810
5.	NoC for Ground Water Abstraction	CGWA/NOC/INF/ORIG/2023/18149 on dated 11/04/2023
6.	Approval letter from BMC	BP-BMC-2022-06-21-004957 Letter No-57693/dated 19/09/2022
7.	Structural Stability Certificate	Registration no. RTP/DTP(ST.ER)- 092/2018 Valid upto 10/05/2024
8.	Permission for construction of V.R Bridge at RD 13.95 Km. of Lingipur Distributary, Mouza - Pandra for access to Plot No. 2807, 2808, 2810, 2798, 2799 over Sabak Khata No. 426, Hal Khata No. 297 Mouza - Pandra, Tahalil - Bhubaneswar,	Letter no6908/we on dated 27/11/2019

4. Location and connectivity: The area is located in Survey of India Topo sheet No. F45T15 bearing Plot No-2810/15121, 2808/15127, 2807, 2800, 2798 & 2799/15866, Khata no-1330/9654. Geographical coordinates for the project site are latitude of 20°18'15.37N and longitude - 85°52' 28.11"E. The kisam of the plots are Ghrabari. The project site is at a distance of 5.2 Km-W from NH-16/AH-45, 1.20 Km –E from Nandankanan Road. Site is flat land with average elevation of 20-21m AMSL. Project site is well connected with New Hitech Road which connects to NH-16 at the distance of 62 m. North direction. Proposed project site also connects to NH-316 (Bhubaneswar-puri Highway) at Pandara Square about 1.3 km-SW to the project site. Vanivihar Railway station is 2.55 Km - SSW away from Project site. Mancheswar Railway Station is 3.61 km away in North-West. Bhubaneswar railway station is 5.27 km away in South-West. Biju Patnaik International Airport 8.34 km in South West. Nearest water body is Gangua Nala at 0.24km. Nearest assess to building as per the plan, the proposed building abuts on a road of width 12.19 mtrs. at front side of the proposed building, which shall be made as

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- per Rule-31 of Odisha Development Authorities (Planning and Building Standards) Rules, 2020. Besides, a culvert has been shown in the proposed building plan, the same shall be of width 12 mtrs for access to the premises.
- 5. The project falls under seismic zone-III as per IS1893 (Part-1):2002 indicating Moderate to lower damage risk zone. The buildings will be designed as earthquake resistant and comply with the required IS specifications.
- 6. **Area details**: Plot area of project is estimated to be 7104.23 sqm, or 1.755 Acres or 0.7104 Ha. & the Built up Area is estimated to be 38015.17 sqm.

AREA STATEMENT	<u> </u>
Particulars	Area (in m²)
TOTAL PLOT AREA	7104.23
Ground Coverage Required(40% of plot area)	2841.7
Area Of Ground Coverage Achieved (39.83% of plot area)	2829.75
STILT FLOOR-1	
BUILT UP AREA	2781.93
· EXEMPTION AREA (FIRE TOWER)	129.24
STILT FLOOR-1 AREA FOR FAR	2652.69
BLOCK-A,B,C &D SERVICES AREA (EXEMPTION AREA IN PARKING)	36.46
STILT FLOOR-1 PARKING AREA	2616.23
STILT FLOOR-2	
BUILT UP AREA	2781.93
EXEMPTION AREA (FIRE TOWER)	129.24
STILT FLOOR-2 AREA FOR FAR	2652.69
BLOCK-A,B,C &D SERVICES AREA (EXEMPTION AREA IN PARKING)	81.62
STILT FLOOR-2 PARKING AREA	2571.07
STILT FLOOR-3	
BUILT UP AREA	2688.11
EXEMPTION AREA (FIRE TOWER)	129.24
STILT FLOOR-3 AREA FOR FAR	2558.87
BLOCK-A,B,C &D SERVICES AREA RAMP & SOCIETY AREA(EXEMPTION AREA IN PARKING)	264.55
STILT FLOOR-3 PARKING AREA	2294.32
NET FAR AREA (BLOCK -A)	3836.36
NET FAR AREA (BLOCK -B)	4811.13
NET FAR AREA (BLOCK -C)	9503.97
NET FAR AREA (BLOCK -D)	10194.6
TOTAL NET FAR AREA(including stilt floor-1,2 &3 service area)	28346.06
GRAND TOTAL B.U.A	38015.17

FAR	3.99
Total No Of Dwelling Units	223
NO Of Recharge pit(Required)	21
NO Of Recharge pit(provided)	25
Plantation Required @1 Tree Per every 80sqm of plot area	109
SOCIETY AREA (REQUIRED)	223
SOCIETY AREA (PROVIDED)	231.37

- 7. Water requirement: Total water requirement of the project is expected to be 180 KLD approximately; out of which fresh water requirement is 120KLD. Domestic: 120 KLD and Flushing: 60 KLD. The source of water is PHED for which PP has obtained No objection certificate from PHD, Bhubaneswar vide letter no. 176 on dated 07.01.2023. There is also provision for groundwater for standby for which PP has applied to CGWB and got the NOC from CGWB vide NOC no. CGWA/NOC/INF/ORIG/2023/18149 with Date of Issuance: 11/04/2023 which is valid up to 10/04/2028.
- 8. Waste water generated and its management: The total waste water generated is 144KLD which will be treated in STP of capacity 160KLD. Treated water recovered is 115KLD which will be used in Gardening – 40KLD, DG Set cooling – 15KLD and 60 KLD in Flushing water. The PP has mentioned there is a provision for zero discharge concept in Dry season.
- For Rainy season, the fresh water requirement of 120 KLD will decrease from 120 KLD to 30 KLD by availing it from roof top storm water collection - 90KLD and 30KLD from Bore well/supply water. Discharge to nearest Drain will be 40 KLD.
- 10. **Greenbelt:** About 100 trees of 8 types of species (Neem, Peepal, Mango, Shisham, Sirish, Babool, Gulmohar or local plants as per the advice of forest officers) will be planted both inside the project area and all along the boundary to create a boundary of greenery.

Area Component	Area in Sqm
Total Plot area (sqm)	7104.23
Green area required@ 20 % of Plot area (sqm)	1,420.84
Green area provided@ 22.43% of Plot area (sqm)	1952.35
Required number of trees @ 1 tree per 80 sq.m. of plot area	89 trees
Number of trees Proposed (No. of trees planted in around the road and peripheral boundary line)	110

11. Solid waste management: The solid waste generated from project will be mainly domestic in nature and the quantity of the waste will be 0.614 Ton/day. Solid wastes generated will be segregated into biodegradable 0.246 T/Day (waste vegetables and foods etc.) and Non-biodegradable or recyclable 0.368 Ton/day (papers, cartons, thermocol, plastics, glass etc.) Components will be collected in separate bins. The biodegradable organic wastes will be treated inside the premises by OWC (Organic Waste Converter) of

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- capacity to treat 250 kg/day. Recyclable and non-recyclable wastes will be disposed through Govt. approved agency.
- 12. Power requirement: The power supply shall be supplied by TPCODL. The maximum demand load is estimated at 1341 KW or 1578 KVA. Permission for Electrical supply to the proposed project site is received from office of the Divisional Manager (Electrical) through Letter No:-4308 on dated 07/---/2022. There is provision of Power backup for the residential project will be through DG sets of total capacity. 1 Nos. 250KVA+1 Nos. 320 0KVA, 415Volts DG Sets with acoustic enclosure with DG Synchronisation with DG Set Stack of 65 m.

13. Solar energy details:

Total Connected Load in kW	1734.2 KW	
Solar Power Required in kW @ 5% of the Connected Load	86.7KW	
Solar Power In kW to be generated by Roof Top Solar Panels	87KW	
No. of Solar panels required (300W to 400W capacity)	62NOS	
SUGGESTED SOLAR SYSTEM: 62 Nos. of Solar Panels suitable for 87 KW LOAD		

- 14. Waste management: Around 2 KLD effluent will be generated which will be treated in septic tank followed by soak pits.27 kg/day solid waste (peak) will be generated during construction phase and will be disposed through waste handling agency.
- 15. Rain water harvesting 10 nos of recharge pits for collection of storm water at selected locations will be provided, which will catch the maximum surface run-off water and roof water and will be stored in a storage tank having capacity of 90 m³.

16. Parking details:

Facilities	Area in Sqm
Parking Area Required(25% Of B.U.A)	7086.51
Parking Area (Provided)	7332.82
Covered Parking(In Stilt Floor-1 (Block-A+B+C+D)	2616.23
Covered Parking(In Stilt Floor-2 (Block-A+B+C+D)	2571.07
Covered Parking(In Stilt Floor-3 (Block-A+B+C+D)	2294.32
Stack Parking	103.5
Open Parking	458.35
Visitor's Parking Required@10% Of Total Parking)	708.64
Visitor's Parking (Provided)	710.65
Electric Charging Point(Required @30% Of Total Parking)	2413.04
Electric Charging (Provided)	2400
Total parking Area (Provided)	8043.47
Total Car Parking No.S (Provided)	250
Total Bike Parking No.S (Provided)	175

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17. **Project cost**: Estimated cost of the project is 76.50 Cr. EMP Capital Cost is 91 Lakh and Recurring Cost /Annum is 3.1 Lakh

Table: EMP cost

Source	Capital Cost (In Lacs)	Recurring Cost (In lacs)
Landscaping	10	0.5
Rain Water Harvesting	10	0.2
Solid Waste Management	8	0.5
STP	50	1.2
Acoustic Enclosure & DG Set Stack	10	0.2
Environmental Monitoring	3	0.5
Total	91	3.1

- 18. Environment Consultant: The Environment consultant M/s Visiontek Consultancy Services Pvt. Ltd, Bhubaneswar along with the proponent made a presentation on the proposal before the Committee on 13.06.2023.
- A. The SEAC in its meeting held on dated 13-06-2023 recommended the following: The proponent may be asked to submit the following for further processing of EC application:
 - a) Permission letter for constructing approach road bridge over Prachi Canal for transportation.
 - b) Permission from BMC to use nearest public drain to discharge treated water.
 - c) Undertaking by the Project Proponent to use PHED water when available to the area and extraction of water from groundwater should be minimal.
 - d) Relook at the possibility to increase parking area as per the parking norms and calculation of parking area should be given in percentage as well as area wise.
 - e) Details of solar power generation and consumption.
 - Relook at the water discharge calculation.
 - g) Revisit the water balance for Dry season as there is deficit of 29KLD and according to the Project Proponent in dry season a Zero Liquid Discharge concept will be obtained.
 - h) RL of the bottom of the rainwater discharge pit as well as RL of ground water table during rainy and summer season.
 - i) Detail plan of drainage for discharging excess treated sewage water.
 - j) Source of water for use during construction phase.
- B. The proposed site shall be visited by Sub-Committee of SEAC to verify the followings

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- Environmental settings of the project site.
- ii) Construction activity, if any started at the site.
- iii) Road connectivity to the project site.
- iv) Drainage network at the site.
- v) Discharge point for discharge of treated water and distance of the discharge point from the project site.
- vi) Any other issues including local issues.
- 19. The proponent has furnished the compliance and the SEAC verified the same as follows:

SI.		and the SEAC verified the same as folio
No.	Information Sought by SEAC	Compliance furnished by the
1.	Pormingion letter for combatte	proponent
1 '	Permission letter for constructing	
	approach road bridge over Prachi	1
	Canal for transportation.	Distributary, Mouza - Pandra for
		access to Plot No. 2807, 2808, 2810,
		2798, 2799 over Sabik Khata No.
		426, Hal Khata No. 297 Mouza -
		Pandra, Tahalil – Bhubaneswar.
1		Permission letter no: 6908/we on
		dated 27/11/2019 is attached as
		Annexure- (a).
2.	Permission from BMC to use nearest	We already received of NOC for
	public drain to discharge treated	Water Supply & Sewerage
	water.	Connection to the
1		proposed Block-(A) SI+S2+S3+10,
		Block (B) SI+S2+S3+10, Block
	1	(C)SI+S2+ S3+18, Block
		(D)SI+S2+S3+18 Multi storied
		residential apartment building (MIG
	İ	Category) over Plot No. 2810/15121,
1		2808/15127, 2807, 2800, 2798 &
		2799/15866 & Khata No. 1330/9654
		in Mouza: Pandara, Bhubaneswar
ŀ		from Office of the Superintending
		Engineer PHD,BBSR vide letter no.
		176 Dated 07/01/2023 which is
<u> </u>		attached as Annexure (b).
3.	Undertaking by the Project	The water requirement of 120 KLD
	Proponent to use PHED water when	will be supplied by PHED) water
1 .	available to the area and extraction	supply system. Presently there is no
	of water from groundwater should be	municipal (PHED) water supply
	minimal.	system located near our project site.
		There will be no provision of sourcing
		the same from any other Supply
		water/surface water body. Hence we
		will meet the daily fresh water
Li	<u> </u>	requirement through ground water

SI. No.	Information Sought by SEAC	Compliance furnished by the proponent
NO.		during the operation phase. We got the no objection certificate from PHD, Bhubaneswar vide letter no. 176 on dated 07.01.2023. We applied to CGWB for ground water and finally we got the NOC from CGWB vide NOC no. CGWA/NOC/INF/ORIG/2023/18149. We will use PHED water when available to the area and extraction of water from groundwater should be minimal. Undertaking is attached as Annexure-C.
4.	Relook at the possibility to increase parking area as per the parking norms and calculation of parking area should be given in percentage	Parking area provided as per ODA Norms. Parking layout as per are attached as Annexure-(d). FACILITIES AREA IN
	as well as area wise.	Parking Area 7086.51 Required(25% OF B.U.A)
		Parking Area 7332.82 (Provided)
		Covered Parking(In 2616.23 Stilt Floor-1 (Block- A+B+C+D)
		Covered Parking(in 2571.07 stilt floor-2 (block-A+B+C+D)
		Covered Parking(in 2294.32 stilt floor-3 (block- A+B+C+D)
		Stack Parking 103.5
		Open Parking 458.35
		Visitor's Parking 708.64 Required@10% OF Total Parking)
		Visitor's Parking 710.65 (provided)
		Electric Charging 2413.04 Point(Required @30% of Total Parking)
		Electric Charging 2400 (Provided)
		Totalparking Area 8043.47 (Provided)

ſ	SI.	Information Soug	nt by SEAC	Compliance furnished by the
L	No.			proponent
			_	Total Car Parking 250
				No.S (Provided)
1				Total Bike Parking 175
_				No.S (Provided)
	5.	Details of solar pow	er generation	SOLAR PANEL SIZING (IN KW)
		and consumption.		AND SOLAR POWER
1				GENERATION.
				The Solar Power Demand For
				Campus area Light , Main Gate Light
				will be 87 KW (5% of total demand)
				SUGGESTED UPS FOR
				EMERGENCY LIGHTING : 1 x
				8KVA, 1Phase Input / 1Phase Output with 90 Minutes backup
				Selection of SOLAR SYSTEM:
1				Total Connected Load in Kw:-1734.2
				KW 254.2
ł				Solar Power Required in kW @ 5%
				of the Connected Load 86.7 KW
1				Solar Power in kW to be generated
				by Roof Top Solar Panels 87KW
				No. of Solar panels Required (300W
İ				to 400W capacity): 62 NOS
	ľ			SUGGESTED SÓLAR SYSTEM : 62 Nos. of Solar Panels suitable for 87
Ĺ				KW load
	6.	Relook at the water	er discharge	
		calculation.	· ·	is expected to be 180 KLD
				approximately; Domestic: 120 KLD
1				(source: rain water harvesting-90
	-			KLD and 30 KLD which will be
ľ				sourced from Bore well/supply water.
				(Makeup Water of 90KLD will be
Ī				managed from roof top Storm water collection.
	ŀ			I ''
ĺ				Reuse of treated waste water (Zero discharge norms will be followed
	- 1			during dry season)
				Flushing: 60 KLD
	- 1			Greenbelt: 40 KLD
1				During rainy season Fresh water
				requirement will be decreases from
1			,	120 KLD to 30 KLD which will be
				sourced from Bore well/supply water.
1			ŀ	(Makeup Water of 90KLD will be
				managed from roof top Storm water collection.
L		_		Only 40 KLD of treated water will
		-		City to KLD of freated water will

		O-well-man fermiohad by the
SI. No.	Information Sought by SEAC	Compliance furnished by the proponent
		be discharge to nearest Drain.
7.	Revisit the water balance for Dry season as there is deficit of 29KLD and according to the Project Proponent in dry season a Zero Liquid Discharge concept will be obtained.	be discharge to nearest Drain. As per NBC the quantity of waste water generate from dwelling units and other facilities should be 80 to 90% of the raw water. So that the waste water recovered after treatment is 115 KLD. Total water requirement of the project is expected to be 180 KLD approximately; Domestic: 120 KLD (source: rain water harvesting-90 KLD and 30 KLD which will be sourced from Bore well/supply water. (Makeup Water of 90KLD will be managed from roof top Storm water collection. Reuse of treated waste water (Zero discharge norms will be followed during dry season) Flushing: 60 KLD Greenbelt: 40 KLD During rainy season Fresh water requirement will be decreases from 120 KLD to 30 KLD which will be sourced from Bore well/supply water. (Makeup Water of 90KLD will be
		managed from roof top Storm water collection. Only 40 KLD of treated
		water will be discharge to nearest Drain.
8.	RL of the bottom of the rainwater discharge pit as well as RL of ground water table during rainy and summer season.	water level depth is given below in
		The Capacity of the recharge pit is designed to retain runoff from at least 15 minutes rainfall of peak intensity. (10 recharge pit will be required having capacity of 6 cum according to CGWB norms.
		Drawing and design report for excess

SI. No.	Information Sought by SEAC	Compliance furnished by the proponent
9.	Detail plan of drainage for	treated waste water and storm water has been approved by EIDP, Bbhubaneswar. attached as Annexure- (h)
	discharging excess treated sewage water.	Drawing and design report for excess treated waste water and storm water has been approved by EIDP, Bhubaneswar attached as
10.	Source of water for use during construction phase.	Annexure- (h)

- 20. The proposed site was visited by the sub-committee of SEAC on 21.08.2023. Following are the observations of the sub-committee:
 - a) PP and consultant team were present and explained the layout.
 - b) There are no construction activities undertaken at project site.
 - c) The site is connected with a public road on prachi canal. PP stated that the excess rain water/ treated water from project site will be discharged to Gangua nallah. It is observed that the land between Project site and Gangua nallah is not part of the project site. PP has to submit detail of land schedule showing ownership of the land along the proposed drain to Gangua nallah and obtain NOC from the landowner for construction of such drain.
 - d) The PP has to submit the layout showing the drainage network starting from building site to natural nallah. The drain design needs to be prepared and approved by appropriate authority considering the data of RLs of bottom of drain at strategic locations and invert level of natural nallah, the run off calculations during highest rain fall, so that the area is not flooded with rain water during heavy rainfall. The maximum ground water level vs proposed ground level, the parking area, RWH etc. (after construction) needs to be considered taking into account the maximum rainfall of the area for adequate structural stability
 - e) PP need to submit the documents in support of building approval application, Fire NOC / recommendations, firefighting provisions and fire corridor.
- 21. The SEAC in its meeting held on 17-11-2023 decided to take the decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

7		The same as follows.	
SI	o	Compliance furnished by the	Views of SEAC
1	the excess rain water/ treated water from project site will be disabased	approach Road Bridge over Prachi Canal for transportation. Permission for construction of V.R Bridge at RD 13.05 Keeping	The query raised was to submit

SI. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	the land between Project site and Gangua nallah is not part of the project site. PP has to submit detail of land schedule showing ownership of the land along the proposed drain to Gangua nallah and obtain NOC from the landowner for construction of such drain.	Distributary Mouza – Pandra for access to Plot No. 2807,2808,2810,2798, 2799 over Sabik Khata No. 426, Hal Khata No. 297 Mouza – Pandra, Tahasil-Bhubaneswar. Permission letter no. 6908/we on dated 27/11/2019 is attached as Annexure – (a)	land along the proposed drain to Gangua nallah and obtain NOC from the landowner for construction of such drain. Here PP has submitted only permission to construct the Road Bridge over Prachi Canal for transportation.
2.	The PP has to submit the layout showing the drainage network starting from building site to natural nallah. The drain design needs to be prepared and approved by appropriate authority considering the data of RLs of bottom of drain at strategic locations and invert level of natural nallah, the runoff calculations during highest rain fall, so that the area is not flooded with rain water during heavy rainfall. The maximum ground water level vs proposed ground level, the parking area, RWH etc. (after construction) needs to be considered taking into account the maximum rainfall of the area for adequate structural stability.	As per the soil testing report, the water level depth is given below In BH NO-01:-2.30m, BH NO-02: 2.40m, BH NO-03: 2.40m and BH NO-04: 2.35m As per India – WRIS, The water level of the project are during pre-monsoon -5.14 mbgl, post monsoon: -3.72 mbgl and during monsoon -2.2 mbgl Annual average water level is 3.71 mbgl The capacity of the recharge pit is designed to retain runoff from at least 15 minutes rainfall of peak intensity. (10 recharge pit will be required having capacity of 6 cum according to CGWB norms). Approved by FIDP, Bhubaneswar, attached as Annexure – (h) We already received of NOC for water Supply & Sewerage Connection to the proposed Block – (A) s1+s2+s3+10, Block (B) S1+S2+S3+10, Block (C) S1+S2+S3+18 Multi storied residential apartment building (MIG Category) over plot no. 2810/15121, 2808/15127, 2807,2800, 2798 & 2799/15866 & Khata No. 1330/9654 in Mouza: Pandara, Bhubaneswar from Office of the Superintending Engineer PHD, BBSR vide letter no.176/ Dated 07/01/2023 which is attached as Annexure (b).	The query raised was to submit the layout showing the drainage network starting from building site to natural nallah.



SI. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
3.	Source of water for use during construction phase.	The water requirement during the construction phase will be met from private water tankers.	_

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

- i) The site is connected with a public road on Prachi canal. PP stated that the excess rain water/ treated water from project site will be discharged to Gangua nallah. It is observed that the land between Project site and Gangua nallah is not part of the project site. PP has to submit detail of land schedule showing ownership of the land along the proposed drain to Gangua nallah and obtain NOC from the landowner for construction of such drain.
- ii) The PP has to submit the layout showing the drainage network starting from building site to natural nallah. The drain design needs to be prepared and approved by appropriate authority considering the data of RLs of bottom of drain at strategic locations and invert level of natural nallah, the runoff calculations during highest rain fall, so that the area is not flooded with rain water during heavy rainfall. The maximum ground water level vs proposed ground level, the parking area, RWH etc. (after construction) needs to be considered taking into account the maximum rainfall of the area for adequate structural stability.
- iii) The PP has to obtain necessary permission of the CGWA for utilisation of the ground water necessary during operational phase of the project in the absence of supply of PHED water.

ITEM NO. 03

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. RENEWABLE ENVIROGIC PRIVATE LIMITED FOR COMMON BIOMEDICAL WASTE TREATMENT FACILITY (CBWTF) OVER AN AREA 1.520 ACRES LOCATED AT: IDCO PLOT NO. 8, IN INDUSTRIAL ESTATE CHOUDWAR, DIST- CUTTACK OF SRI DEBASIS TRIPATHY - TOR

- 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. This proposal is for Terms of Reference of M/s. Renewable Envirogic Private Limited for Common Biomedical Waste Treatment Facility (CBWTF) over an area 1.520 acres located At:IDCO Plot No. 8,in Industrial Estate Choudwar, Dist- Cuttack of Sri DebasisTripathy.
- Category: This project falls under Category "B" of Project activity 7 (da)- Development of Common Bio Medical Waste Treatment Facility projects as per EIA Notification dated 14th Sept, 2006 as its amendments.
- 4. Location and connectivity: The proposed project is located at Plot No. 08, Chawduar, Dist-Cuttack, State-Odisha. The geographical co-ordinates of project site are 20.541306°N and 85.870400°E. It falls under Topo sheet no.: F44T14 & F44T15. The nearest habitation is Village-Banipadai-0.50 KM-NE, Village-Gopalpur-1.5km-SE, Village-Sasanga-2.58Km-NW. The nearest highway is NH- 55 is about 2km in south direction. The nearest Railway Station

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- is Charbatia Railway station is about 5.14 km in NE direction. The nearest Airport is BijuPatnaik Airport, Bhubaneswar is about 32 km in SE direction. The nearest water bodies are Mahanadi River -3.77 km (S), Chattisha lake-(>200 m) (SW), SingliJhor (1.16 Km (SW). The nearest reserve forests are Charbatia RF- 3.40 km (NE,Baula RF-4.85 km (SW),Sunimuhan RF-6.75 km (SW).
- 5. There are no National Park/Wildlife Sanctuary/ Eco-sensitive zone located within 10 km radius of the Project Site.
- Baseline study conducted: Baseline study is being conducted from Oct-2023 to Dec 2023
 Locations within 10 Km study area according to the CPCB guidelines in Core zone and
 Buffer zone area.
- 7. Water requirement: Total Water requirement for the proposed CBWTF project is 15 KLD and daily fresh water requirement is 7.5 KLD for Domestic and Processing including Vehicle washing and Plantation purposes. The water requirement will be met through bore wells.

Sr. No.	Details	Consumption (KLD)
i)	Process requirement (Incineration, Cleaning of storage area, Autoclave, Shredder)	7.5
ii)	Domestic Requirement	2.0
iii)	Plantation and Greenbelt, Vehicle Washing & Floor washing	5
	Total	14,5

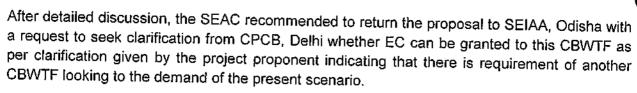
- 8. Wastewater details: Waste water generated from the treatment of biomedical waste during incineration, autoclaving, washing of floors, vehicle wash platform, etc. will be treated in the Effluent Treatment Plant (capacity 10 KLD). The treated water would be recycled in the plant to reduce the amount of water used.
- Power requirement: Total power requirement for the proposed project would be 100 KW at 11 KV lines which will be sourced from State Electricity Board. Additionally, 1 no. of DG set of 125.0 KVA is proposed for the project.
- 10. Rainwater harvesting details: A rainwater harvesting system will be also be set up at the plant to ensure better water management.
- 11. Solid waste generation:

Type of Waste Generated	Quantity
Ash	100 - 150 kg/day
Other Residues	10 - 20 kg/day

- 12. **Mitigation of solid waste produced:** ash from incinerator and other residue materials generated from the process are collected in bags, temporarily stored in storage shed and finally disposed in secured landfill.
- 13. **Greenbelt development:** Green belt will be developed over 33 % of the total land will be the greenbelt area i.e. 0.503 acres.

- 14. **Total Employment**: During the operational phase 30 persons (Direct + Indirect) & during construction phase local people will be hired.
- 15. Project cost: The estimated project cost is ₹400 Lakh i.e. ₹ 4 Crore.
- 16. Environment Consultant: The Environment consultant M/s.Visiontek Consultancy Services Pvt. Ltd, Bhubaneswar along with the proponent made a presentation on the proposal before the Committee.
- 17. The SEAC in its meeting held on dated 01-12-2023 decided to take the decision on the proposal after receipt of the following from the proponent:
- A. The proponent may be asked to submit the following for further processing of EC application:
 - i) The proposed site is located within 75 K.M. from another existing CBWTF. As per CPCB guidelines, this proposed CBWTF does not meet the siting criteria. The PP has to clarify as to why this proposal shall not be rejected due to non-confirming to the siting criteria. A detailed write up in this regard shall be submitted.
 - ii) Land documents and kisam of land.
- B. If decided to issue ToRs, following specific ToRs may be prescribed while issue of Terms of References.
 - i) Permission from Aviation Research Centre, Charbatia, Cuttack for stack height and all other statutory clearances shall be obtained.
 - ii) Detailed write up on the handling of bio medical waste (segregation, process followed and disposal of waste).
 - iii) Submit a detailed layout of the proposed project showing all process, materials storage, and handling units.
 - iv) Precautionary measures to be undertaken to prevent contamination of soil and water from the raw material storage area due to leaching.
 - v) Brief write up on surface run off management with drainage map.
 - vi) Submit the water balance break-up and where the cooling water is to be used.
 - vii) Submit the coverage area details as it is Notified Industrial Area.
 - viii) SOP for Biomedical waste management for workers involved in segregation and waste handling.
 - ix) Regarding disposal of the incinerator ash submit supporting documents like MoU with private agencies.
 - x) The ETP should have provision to take care of wastewater being contaminated with biomedical wastes.
- 18. The proponent has furnished the compliance and the SEAC verified the same as follows:

)		
SI. No.	Information Sought by SEAC	Compliance furnished by the proponent
i.	The proposed site is located within 75 K.M. from another existing CBWTF. As per CPCB guidelines, this proposed CBWTF does not meet the siting criteria. The PP has to clarify as to why this proposal shall not be rejected due to nonconfirming to the siting criteria. A detailed writeup in this regard shall be submitted.	
The state of the s		 At present there is one CBWTF run and operated by M/s Saniclean Pvt Ltd with its plant set up at Tangia Pada, Khurda without having Environment Clearance (plant was set up before 2006 notification). Only CTO was recevied having capacity-3600 KG/Day. Which is not sufficient to cater the Biomedical waste generate from 75 km buffer area. Since there is huge presence of private sector HCFs at Khurda and Cuttack districts, this CBWTF is unable to cater to all the HCFs which are located at Cuttack, Khurda and another adjacent district. As per the CPCB guidelines one CBWTF can only manage wastes of 10,000 beds and not more than that, so new CBWTF is required in this scenario, proposed CBWTF is capacity to handel 5 tan /day and it will expandable in future, it was found that there are so many
		 leftover HCFs and they are not able to treat and manage their wastes despite willingness and good intention. This proposed CBWTF will be located at Chowdar, as it is very strategically placed and very nearer to 3-4 districts of Odisha which can easily cater to the needs of the catchment area. Moreover, it will address the current gap & absorb all feature load of HCFS For this we have already acquired land of 1.6 Acres and we are ready to bear all part of the capital investments that are required as per CPCB guidelines and Rules.
		 Another proposal was submitted having proposal no. SIA/OR/INFRA2/456045/2023 on dated 08.01.2024 which comes 35 km distance from our project site (after submission of our proposal). Distance of all CBWTF of Odisha is attached As Annexure-1.
fi.	Land documents and kisam of land	



ITEM NO. 04

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S RENEWABLE ENVIROGIC PRIVATE LIMITED OF COMMON BIOMEDICAL WASTE TREATMENT FACILITY (CBWTF) AT: KHATA NO.18, PLOT NO. 134, MOUZA- PADMAPUR, TAHASIL- KORAPUT, DISTRICT – KORAPUT OF SRI DEBASIS TRIPATHY – TOR

- The proposal was considered by the committee to determine the "Terms of Reference (ToR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of EIA Notification, 2006 and amendment thereafter.
- This proposal is for Terms of Reference for environmental clearance for M/s Renewable Envirogic Private Limited of Common Biomedical Waste Treatment Facility (CBWTF) At: Khata No.18, Plot No. 134, Mouza- Padmapur, Tahasil - Koraput, District - Koraput of Sri Debasis Tripathy.
- Category: The proposed project of setting up of Common Biomedical Waste Treatment Facility (CBWTF) falls under Category B, schedule 7(da) as per the EIA notification, 2006 and after the subsequent amendments made in 2009 and 2015.
- 4. Location and connectivity: The proposed site is located in plot area of 1.44Acres, KhataNo.18, Plot No. 134, Mouza- Padmapur, Tahasil Koraput, District Koraput, State Odisha. The project is a part of the Survey of India Toposheet No. F44T14 & F44T15. The geo-coordinates of the project is Latitude 18° 47' 29.2164" N and Longitude 82° 47' 59.658" E. Nearest railway station is Koraput Junction- 8.3 km (sw); Nearest National, highway is NH- 43 is about 1.4 km in S direction; Nearest airport is Jeypore airstrip 28 km. Nearest habitation are Village-Padampur-0.63 KM-S and Koraput Town-9.4 km (NW). Nearest Rivers / streams/ Water Bodies are Kolab Reserver-4.25 km(S) and Mukhnajorhi Nalla-4.7 km(NE). Nearest forests are Anigurha Reserve forest-2.3 km(NNW) and Naranga RF-4.7(NNE)
- 5. Baseline study period: Baseline monitoring period is from Oct-2023 to Dec 2023.

6. Proposed Plant Capacity -

Incinerator: 250 Kg/ hr - 1 number+ 1 (For Future)

Autoclave: 300 kg/batch Shredder: 300 kg/hr

Effluent Treatment Plant (ETP): 10 KLD

Total estimated waste 5 TPD generated from about 10,000 beds @ 300~500 gm/bed.

Proposed CBMW TFCapacity-5 TPD

Incinerable waste = $40\sim50\%$ of total waste = $2.0\sim2.5$ TPD

Operating hours =8 to 10 hrs/day

7. Treatment Technology:

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TWasfako Environmental Soventist, SEAC

EQUIPMENT	PURPOSE	Capacity	Number(s)
Incinerator With APCD & continuous Emission Monitoring instrument	The primary purpose of incineration is to burn the waste to ashes through a combustion process. The purpose of primary chamber of the incinerator would be combustion of the waste materials into safe end products (ash). The purpose of the secondary chamber would be to burn off gases and ensure safe end products (gaseous).	250 kg/hr	
Autoclave	The proposed autoclave is a high pressure high vacuum steam sterilizer. This technique uses mechanical air removal with the help of vacuum pump and offers several advantages over standard sterilization cycle such as: Nearly 100% air removal from sterilization chamber. Vacuum drying at the end of sterilization hold period ensures drying of the material which has been sterilized.	300 kg/hr	1
Shredder	Shredder will be installed by the side of Autoclave for immediate shredding of sterilized materials to complete the cycle of operation of disinfection and segregation for reuse/recycle.	300 kg/hr	1
Effluent Treatment Plant	The Effluent Treatment Plant will be an integral part of the plant as it will treat the waste water generated from the treatment of biomedical waste during incineration, autoclaving, washing of floors, vehicle wash platform, etc.	10 KLD	1
Transportation Vehicle	GPS enabled closed container Vehicles will be employed for transporting waste from common collection point to the facility.	Model : TATA Ace Gold	3

8. Water requirement: Total water requirement for the CBWTF project is 18.5 KLD which will be sourced from bore wells & water tankers. The daily fresh water requirement would be12.5 KLD and recycled water would be 6 KLD. A rainwater harvesting system will be also be set up at the plant to ensure better water management.

Sr. No.	Details	Consumption (KLD)
1	Process requirement (Incineration, Cleaning of storage area, Autoclave, Shredder)	7.5
2	Domestic Requirement	1.5

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3	Reuse(in Venturi Scrubber, Incineration process)	6.0
4	Greenbelt	15
5	Vehicle Wash	1.0
	Total	18.5

- Wastewater management: Wastewater generated from the treatment of biomedical waste during incineration, autoclaving, washing of floors, vehicle wash platform, etc. will be treated in the Effluent Treatment Plant (capacity 10 KLD). The treated water would be recycled in the plant to reduce the amount of water used.
- 10. Solid Waste generation: Ash 100 150 kg/day and Other Residues 10 20 kg/day
- 11. Power requirement: DG set of 125.0 KVA is proposed for the project and 100 KW at 11 KV lines will be taken from State Electricity Board.
- Manpower: Total about 30 persons are proposed to be hired for plant operations including officers, skilled and unskilled workers.

SL. NO.	JOB PROFILE	NO. OF PERSONS
1.	Project/ Plant Manager	1
2.	Chief Operator of Equipment	2
3.	Assistant Operators	5
4	Office Staff including marketing people	6
5.	Drivers	3
6.	Helpers with the Vehicles	3
7.	Workers on the Floor at the Facility	6
8.	Security Personnel	4
	Total	30

- 13. Project cost: The Estimated cost of the project is approx. 178.2 Lakhs.
- 14. Environment Consultant: The Environment consultant M/S Visiontek Consultancy Services Pvt. Ltd, Bhubaneswar along with the proponent made a presentation on the proposal before the Committee.
- 15. The SEAC in its meeting held on dated 27-12-2023 recommended the following.
 - A. The proponent may be asked to submit the following before consideration of ToRs:
 - i) The proposed site is located within 75 K.M. from another proposed CBWTF. As per CPCB guidelines, this proposed CBWTF does not meet the siting criteria. The PP has to clarify as to why this proposal shall not be rejected due to non-confirming to the siting criteria. A detailed write up in this regard shall be submitted.
 - ii) Land documents and kisam of land.
 - B. Following specific ToRs to be issued if decided to issue ToRs:
 - Permission from the panchayat and ROW documents for connecting 240meters of land from project site to nearest approach road through the nearby village area.

- ii) Submit details of amount of waste to be generated from the hospitals on the per day basis rather than calculating on number of beds.
- iii) Submit aerial distance certificate from the nearby biomedical waste treatment facilities.
- iv) Precautionary measures to be undertaken to avoid contamination of wastes or due to surface runoff from project site to the nearby water reservoir.
- v) Submit a Standard Operating Protocol starting from collection point of waste generation/raw material, segregation, transportation, treatment and disposal of waste generated from plant.
- vi) The baseline monitoring should also include biological parameters and baseline study should also cover the monsoon period.
- vii) The storage sheds provided for the biomedical waste should be covered.
- viii) Provide a buffer zone of 5km around the proposed site.
- ix) Submit a write up on the amount of segregated waste to be handled at the project site monthly and annually.
- x) Avoid using transport route passing through the village.
- xi) SOP/measures to be followed for safety and health issues (due to handling of hazardous waste materials) of employees and local people of nearby villages.
- xii) Area details to be cover for collection of waste materials/raw materials.
- xiii) Agreement papers or MoU with dealers for disposal of waste generated and its management.
- xiv) Category wise list of wastes to be handled.
- 16. The proponent has furnished the compliance and the SEAC verified the same as follows:

SI. No.	Information Sought by SEAC	Compliance furnished by the proponent
i)	The proposed site is located within 75 K.M. from another proposed CBWTF. As per CPCB guidelines, this proposed CBWTF does not meet the siting criteria. The PP has to clarify as to why this proposal shall not be rejected due to non-confirming to the siting criteria. A detailed write up in this regard shall be submitted.	Since it is mandated by CPCB that all biomedical waste generated from HCF is to be disposed as per CPCB Guidelines 2016. As per available data there are 6000 beds in government health care facilities in these districts (i.e. Kendrapara, Dhenkanal, Angul, Kendujhar). The present waste generated from such Government HCFs is not being treated and disposed as per CPCB rules and guidelines as no CBWTF is catering to these HCFs. Considering the WHO standard of 3.5 beds per 1000 population, all districts are short of the required number of beds for patients (i.e. 88% bed gap). After 5 to 6 years the number of beds will increase by 2 to 3 times ie 30,000 beds will be

SI.	Information Sought by SEAC	Compliance furnished by the proponent
No.		the proponent
}		provided in and around the 75 km buffer are
ļ		I will the above background and keeping in mi
		I the current demand and potential requirement
ĺ		I the next 2-5 years. We intend to set up 1 CRIAR
ł		at 1000, Unaudar to meet the new bio-medic
		waste management requirements having capacitation
		I 5000 kg/day. The 75 km radius of the proposition
		I Project includes the districts of Dhankanat Ana.
		J Palpur, Dilaurak, Navagarh, Khorda Kaonibe
ľ		I Rendrapata, Jagatsinghbur and Puri
- 1		At present there is one CBW/TF run and operate
-		by IVI/S Saniclean Pvt Ltd with its plant set up.
J		I angla Paga, Khurga Without having Environmen
		I District (DIANT Was set up before and
[Houndation), Only CTO was recevied having
ľ		I capacity-3000 KG/Day Which is not sufficient a
ł		cater the Biomedical waste generate from 75 ki
- 1		buffer area. Since there is huge presence of
		private sector HCFs at Khurda and Cuttac
		districts, this CBWTF is unable to cater to all th HCFs which are located at Cuttack, Khurda an
ľ		another adjacent district. As per the CPCI
1		guidelines one CBWTF can only manage waster
1		of 10,000 beds and not more than that, so new
ł		ODVIC IS required in this scenario proposed
ļ		ODVIT IS Capacity to handel 5 tan /day and it will
	}	The second and the second seco
	,	of many lettover HCFs and they are not able to
ĺ		Total and manage their wastes despite willingness
1		and good intention.
		 This proposed CBWTF will be located at Chauder
		Chowdar, as it is very strategically placed and
		very riediter to 3-4 districts of Odisha which and
[1	easily tater to the needs of the catchment and
1]	Moreover, it will address the current gap & absorb
		all leadure load of MCFS For this we have already
- 1	[acquired land of 1.6 Acres and we are ready to
- 1	t	bear all part of the capital investments that are required as per CPCB guidelines and Rules.
	1.	Another proposal was submitted to:
		Another proposal was submitted having proposal no. SIA/OR/INFRA2/456045/2023 on dated
		08.01.2024 which comes 35 km distance from our
	J	project site (after submission of our proposal).
ĺ	•	Distance of all CBWTF of Odisha is attached As
) Lan	d documents and kisam of land.	Annexure-1
	y ugulinenis and kicom of land - Je	equired documents are attached as Annexure2

After detailed discussion, the SEAC recommended to return the proposal to SEIAA, Odisha with a request to seek clarification from CPCB, Delhi whether EC can be granted to this CBWTF as

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per clarification given by the project proponent indicating that there is requirement of another CBWTF looking to the demand of the present scenario.

ITEM NO. 05

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR KHEMABEDA DECORATIVE STONE MINES OVER AN AREA OF 4.755HA. TOTAL CLUSTER AREA 9.696 HA) IN VILLAGE KHEMABEDA, TAHASIL BOIPARIGUDA, DISTRICT KORAPUT OF SRI HOTHA VENKATESH - EC

- 1. This proposal is for Environmental Clearance for Khemabeda Decorative stone mines over an mining lease area of 4.755Ha. The Total cluster area is 9.696 Ha. located in village Khemabeda, Tahasil Boipariguda, District Koraput of Sri Hotha Venkatesh.
- 2. Category: As per EIA Notification, 2006 and subsequent amendments the project falls under Category B1 under Schedule of item of 1(a) Mining of Minerals.
- 3. Letter of Intent from Govt. of Odisha, Dept. of Steel & Mines, has issued vide letter no.

 1484
 SM-NC2-MC0002-2021
 S&M, Bhubaneswar, on dated 08.02.2021 for grant of mining lease of 4.755 Ha.
- 4. Successful bidder is Sri Hotha Venkatesh residing at H. No. 16.31-IXMI-203 9th Phase, Near Community Ground, KPHB colony, Hyderabad for a period of 30 years.
- 5. The Mining Plan along with the PMCP for 4.755 ha. was approved by Director of mines, Bhubaneswar vide letter No. MXXII-(b) 12/2021 9441/DM dated 02.12.2021.
- 6. This source is not present in the DSR report of the district, as this is newly demarcated source by mining department.
- 7. Another mine i.e., Khemabeda Decorative stone over an area of 4.941Ha. is located within the 500m from the proposed project so the project comes under cluster approach with total area of 9.696Ha. Cluster certificate has been issued by Mining officer, Koraput, Odisha.
- 8. TOR details: Approved Terms of Reference (TOR) was issued by SEIAA, Odisha vide letter no. 5085/SEIAA (SEIAA File No. SIA/OR/MIN/73400/2022), Odisha dated 02.08.2022.
- 9. Public hearing details: The public hearing of Khemabeda Decorative Stone mines cluster was conducted on Dtd.08.02.2023 at 11:00 A.M. at village Khemabeda under Boipariguda Tahasil of Koraput, Odisha. Major issues raised during the meeting are: protection of agricultural land due to vehicles movement, construction of boundary wall and mandap for village Temple, school boundary, drinking water supply to villages and school, employment of local youths / villagers on priority basis in the Mines, construction of school for children, Installation of mobile tower so that the children will online education, repair of road in the area, Yearly health camps and plantation activities in the area, Guard walls on the bridge, Ambulance facilitation. Budget allocated towards public hearing is 22.66 Lakhs.
- 10. Location and connectivity: Khemabeda Decorative Stone mines cluster is situated at Village Khemabeda No.200, Tahasil Boipariguda, District Koraput, Odisha State. The proposed project area of 4.755Ha. is bearing Khata No. 315, Plot No-1355/p and the other mine area of 4.941Ha. is bearing Khata no. 315, Plot No-1355,1356,1360. The cluster area

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is coming under Parbat Kissam and type of land is Abada Ajogya Anabadi. The project site falls in survey of India Toposheet no.65J/6 (E44K6).The area of 4.755Ha. having geo coordinates as follows - latitudes 18°38'09.67" N to 18°38'15.09 N & longitudes 82°24'5.59" E to 82° 24'16.79" E. The other mine area of 4.941Ha. have geo coordinates as latitudes 18°38'13.9" N to 18° 38'21.8" N & longitudes 82°24'18.6" E to 82°24'26.8". The nearest railway station is Koraput Railway Station at an aerial distance of 37 Km. The lease area can be approached from NH- 5 & SH- 25 at 38 Km & 6.2 Km. The nearest water body is Nagavalli River at 8.2 Km and nearest Reserved Forest is Dasamatpur RF – 5.0 Km and nearest Village is Khemabeda Village – 2.5 Km. The Project is not located within Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC. The nearest sanctuary is Karlapat Wildlife Sanctuary is situated 98km distance from the lease area.

- 11. Reserves and total production: Total geological reserves of the 4.755Ha. mine will be 358480 cum and mineable reserves is 252128.40cum. Total geological reserves of the 4.941Ha. mine will be 579955 cum and mineable reserves is 425181cum. Total production in 5years is 3500cum and cluster production will be 4700cum/annum.
- 12. Mining method: Opencast semi mechanized method with the deployment of Machines like Jack Hammer Drill, Compressor, Hydraulic Excavators & Tippers will be adopted for excavation of the mine. Volume of Decorative Stone will be 700 (cum)/annum. Maximum depth of excavation will be up to 630mRL and ground level is at 610mRL. The loaded vehicles will cover distance of approximately 10km to meet SH 25.
- 13. Waste generation and management: Total intercalated waste from proposed Granite during 5 years of plan period is 13440m³. Out of total waste, 40% of the waste will be used for construction and maintenance of the road i.e., 5376m³. Remaining 806 m³ waste will be dumped in the dump area at an average height of 2.5m in an area of 3301m³.
- 14. Water Requirement: Total water requirement is 7 KLD out of which dust suppression is 2 KLD, Plantation is 3 KLD and drinking/ domestic is 2 KLD.
- 15. Power Requirement: DG set will be used for total power requirement.
- 16. Baseline Study: Baseline study conducted in period March 2022 to May 2022.

PERIOD	March to May 2022	Applicable Standards	
Air Quality	PM _{2.5} -16.7 to 30.6 µg/cum	60 μg/cu.m	
Parameters At 8 Locations	PM ₁₀ – 34.3 to 56.2µg/cum	100 µg/cu.m	
	SO ₂ - 5.2 to 9.9 µg/cum	80 µg/cu.m	
	NOx - 9.1 to 19.5 μg/cum	80 µg/cu,m	
Ground water Quality at 5	pH - 6.6 to 7.3	6.5 to 8.5	
Quality at 5 Locations	Total Hardness – 36 to 72 mg/l	600 mg/l	
	Chloride - 10.0 to 18.0 mg/l	250 mg/l	
	Fluorides - 0.05 to 0.96 mg/l	1.5 mg/i	

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Twarfak, Environmental Spientist, SEAC

	TDS - 80 to 140 mg/l	1000 mg/l
	Heavy metals : BDL (Cd <0.001, As <0.01, Hg<0.0001) mg/l Detection limits of analysis method	Heavy metals: (Cd <0.003, As <0.01, Hg<0.001) mg/l
Surface water	pH - 6.7 to 7.0	
at 2 locations	Dissolved Oxygen – 7.1 to 7.5mg/l	<u>.</u>
	Biochemical Oxygen Demand - 1.5 to 2.5 mg/l	
	Chemical Oxygen demand – 6 to 15 mg/l	
Noise at 8	Day (dBA Leq)- 35.9 to 45.7	55
locations	Night (dBA Leq) - 29.0 to 36.1	45
Soil Quality at 4 locations	pH - 6.10 to 6.7, Potassium - 43 to 87.4 kg/Ha., Phosphorous -19.8 to 40.8 kg/Ha., Total Organic Carbon % - 0.85 to 0.98, Electrical Conductivity - 65 to 80 µs / Cm.	

- 17. **Greenbelt Development:** During the period of 5years there are 2500no. of saplings will be planted both sides of the road and safety zone of the project side.
- 18. Manpower: Total 47 no. of employees will be required for the cluster and for the proposed mine manpower requirement is 22 nos.
- 19. **Project Cost & EMP cost:** Project cost of the cluster is Rs. 500 Lakhs. For Environment management Plan: Capital cost of the project 6.0 lakhs per each mine and recurring cost is 6.2 lakhs per each mine.
- 20. Environment Consultant: The Environment consultant M/s Kalyani Laboratories Private Limited, Bhubaneswar along with the proponent made a presentation on the proposal before the Committee.
- 21. The SEAC in its meeting dated **29.08.2023** decided to take the decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

SI. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	lease area mention in Approval Letter of Mining Plan (4.775 ha.) and area applied for EC i.e., 4.755 ha. and revise the same from the mining officer.	Khemabeda Decorative Stone mine cover 11.75 acres or 4.755 Ha of land. Due to clerical mistake in the approved mining plan letter was written as 4.775Ha, which was corrected letter. The rectify letter approved by Joint Directors of mines of Koraput Circle, Koraput has been given as a Annexure I.	Corrected copy submitted
2.	The proponent shall ensure that the	The lease area is a rocky area with	

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SI. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	topsoil excavated shall be stored in an earmarked area and the same shall be used in waste land filling along with plantation on it. A detailed proposal to this effect to be submitted.	granite exposed area. There is no top soil present in the lease area. However, during the mining if any soil excavated that will be stores along the boundary of the lease area i.e., in the safety zone and used for plantation purpose.	
3.	Copy of DSR with inclusion of proposed sairat source in DSR.	Copy of approved DSR attached as Annexure -2. Serial No - 28, Page No-43.	Copy submitted

Considering the information furnished and the presentation made by the consultant, M/s Kaiyani Laboratories Private Limited, Bhubaneswar along with the project proponent, the SEAC recommended for grant of Environmental Clearance upto lease period with stipulated conditions as per Annexure – B and following additional conditions;

- Haulage road shall be developed and maintained perennially and perpetually by the proponent in consultation with the concerned authority of the Govt.
- ii) The project proponent shall maintain periodic health check-up records of their employees and ensure use of face mask by workers in crushing and handling sections of the decorative stone quarry for ensuring that working personnel are not affected by silicosis.
- iii) The project proponent shall follow proper procedure as advised by Forest Deptt. for tree felling or transplantation of those tress within safety zone. Provision for compensatory afforestation must be done by equal number of plantations in consultation with Forest Deptt.
- iv) The project proponent shall undertake re-grassing of the area or any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for fodder, flora, fauna etc. after ceasing mining operation that is at the time of mine closure.
- v) Detail risk and hazard management procedure as per the **Annexure C** shall be followed by the lessee.

<u>ITEM NO. 06</u>

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. RAGHUPATEE ESTATE & HOLDING PRIVATE LIMITED FOR MULTISTORIED RESIDENTIAL PROJECT [2 BLOCKS OF (EB+G+11) AND 1 EWS BLOCK OF (S+11)] OVER REVENUE PLOT NO. 527,528,529,530, 531,531/917,532, 533,534, 557/1202, 557/1146, KHATA NO. 260,213,418/66, 418/394,418/393 OVER AN BUILT-UP AREA 79667.63 SQM. AT VILLAGE - JARIPADA, TAHASIL-CUTTACK, DISTRICT - CUTTACK OF SRI KOURAB KUMAR RATH - EC

 This proposal is for Environmental Clearance of M/s. Raghupatee Estate & Holding Private Limited for Multistoried Residential Project [2 Blocks of (EB+G+11) and 1 EWS Block of (S+11)] over Revenue Plot No. 527,528,529,530, 531,531/917,532, 533,534, 557/1202,557/1146, Khata no. 260,213,418/66, 418/394,418/393 over an built-up area

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JNCLIEUK Environmental Scientist, SEAC 79667.63 sqm. at village - Jaripada, Tahasil - Cuttack, District - Cuttack of Sri Kourab Kumar Rath.

2. Category: The project falls under category "B" or activity 8 (a)-Building & Construction Project under EIA Notification dated 14th September 2006 as amended from time to time.

3. Statutory clearances obtained:

S. No	Permission	Department	Reference no. and Date
а)	Approval Building Construction	Sareikela Kharswan Jilla parishad	Application No. SKZP/GH/0018/2022/REV1 Date 29/12/2022 11:12:25
b)	DFO Territorial	Divisional Forest Officer, Seraikella Forest Division	Letter No. 1588, Date: 03/08//2022
с)	DFO Wildlife	Department of Forest, Forest Reserve and sanctuary	Letter No. 20220907, Date:09/09/2022
d)	CO certificate	CO Chandil	Letter No. 704, Date: 10/10/2020
e)	AAI Height Clearance NOC	Airport Authority of India	NOC ID: JAMS/EAST/B/091721/575455 Date: 08/11/2021
f)	Fire Advisory Clearance	Fire Service Department Ranchi	1237/Tech./2022, Date: 02/03/2022
g)	Affidavit Project Area & No Construction	M/s Creative Homes. by Mr. Manoj Kumar Agarwal	Date: 04/02/2023
h)	Assurance for Sewerage Discharge and solid waste disposal	Drinking Water and Sanitation Division, Sareikela	Letter No. 1144/saraikela Date: 30/07/2022
i)	Application for Permission to Abstract Ground Water	CGWA (Central Ground Water Board)	Application Code: 87847

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S. No	Permission	Department	Reference no. and Date		
	for Infrastructure Use				
j)	Letter from Circle Officer's Office, Chandil regarding land report	Letter from Circle Officer's Office, Chandil regarding land report	Letter no. 704 on dated 10/10/2020		
k)	Affidavit for Non availability of supply water, construction of STP and Wet land	Affidavit for Non availability of supply water, and construction of STP	submitted		

- 4. Location and connectivity: The site is located in the eastern part of the Twin City Bhubaneswar & Cuttack. The proposed project is over Revenue Plot No.:-527,528,529,530,531,531/917,532,533,534,557/1202,557/1146, Khata no.260, 213,418/66, 418/394,418/393 at Village Jaripada, Tehsil Cuttack, District Cuttack, Odisha in survey of India Topo Sheet no. F45T15 NE bounded by latitude 20.40131643807506° to 20.40427243792534° and Longitude 85.89585584751936° to 85.89762769633705°. Bhubaneswar railway station is 16 km away from the project site towards SSW direction. Mancheswar Junction station is 10.40 km away from the project site towards SSW direction. Patia railway station is 8.42 km away from the project site towards SSW direction. (Aerial distance).
- Cuttack area falls in the Seismic Zone III & Seismic Intensity "moderate". This zone is called the moderate damage risk Zone & Zone factor Z = 0.16 as per IS: 1893.
- 6. The proposed site is being used for Residential purpose under Cuttack Municipal Corporation. Land has been acquired for Residential development - under Cuttack Development Authority (proposed project site is comes under Mouza - Jaripada which is notified for inclusion under CDA area (Comprehensive Development Plan Area Under the Jurisdiction of Cuttack Development Authority.
- 7. Topography and access to the building: Site is flat land with average elevation of 43-45 m AMSL. Project site is well connected with New NH-16 which connects to Bhubaneswar to Cuttack at 1.5 km west direction. Site is flat land with maximum elevation of 46.49 m AMSL. Project site is well connected with road. Site also connects to NH-16 which is nearer (1.5 Km) to the project site towards West direction. As per the present CDP, a 200 feet wide master plan Road has been proposed suggesting the road widening proposal to existing canal embankment road. From NH-16, on both sides of the canal embankment roads are existing out of which the right side canal embankment have been developed with black

- toped road but the left side canal embankment over which the plot is getting access to the left side canal embankment is under development/developing.
- 8. Land use details: Total land acquired for this project is 22551.44 m² or 5.5725 Acres or 2.2551 Ha. The proposed project will have a total built-up area of 79667.63 sqm. (Including Basement).

Table: Land use details

S. No.	Particulars	Area (în m²)
a) .	Plot Area (POSSESSION)	22551.44 m ² or 5.5725 Ac. or 2.2551 Ha.
b)	Ground coverage	5705.88 sqm (25.30% of total plot area)
c)	Internal Road	8136 sqm (36.077% of total plot area)
d)	Paved Area & Open Parking	1281 sqm (5.680 % of total plot area)
e)	Area for WTP & STP	148 sqm (0.656 % of total plot area)
f)	Area for plantation & Green belt on podium	7136.56 sqm (31.6 % of total plot area)
g)	Area for other services	144 sqm (0.656 % of total plot area)
h)	Total Built Up Area	79667.63 sqm
i)	Total FAR Area of Two Blocks 1&2	56337.41 sqm (2.498)
i)	FAR area of Basement	785.81 sqm
k)	FAR area of Block-1	27560.8 sqm
0)	FAR area of Block-2	27560.8 sqm
m)	FAR area of society room	430 sqm
n)	FAR area of Block-3	4561.15 sqm

Table: Building area details

COVERAGE	BLOCK-1 (in sqm)	BLOCK-2 (in sqm)	EWS BLOCK-3 (in sqm)	SOCIETY (in sqm)	ICT (in sqm)	PUBLIC WASHROM	TOTAL BUA(in sqm)
BASEMENT	17233. 16356. 785.81	97, utility-					17233.8
STILT FLOOR			482.92sqm(Parking- 403.1, utility-44)				482.92
GROUND FLOOR	2396.48	2396.48		430	20.25	18.88	5262.09
FIRST FLOOR	2134.75	2134.75	482.92				4752.42
SECOND FLOOR	2355.36	2355.36	482.92				5193.64
THIRD FLOOR	2355.36	2355.36	482.92				5193.64
FOURTH FLOOR	2355,36	2355.36	482.92				5193.64
FIFTH FLOOR	2355.36	2355.36	482.92				5193.64
SIXTH FLOOR	2355.36	2355.36	482.92				5193.64
SEVENTH FLOOR	2355.36	2355.36	482.92				5193.64
EIGHT FLOOR	2355.36	2355.36	482.92				5193.64
NINTH	2355.36	2355.36	482.92				5193.64

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COVERAGE	BLOCK-1 (in sqm)	BLOCK-2 (in sqm)	EWS BLOCK-3 (in sqm)	SOCIETY (in sqm)	ICT (in sqm)	PUBLIC WASHROM	TOTAL BUA(in sqm)
FLOOR				 	94117	 	
TENTH FLOOR	2355.36	2355.36	482.92	<u> </u>			5193.64
ELEVENTH FLOOR	2355.36	2355.36	482.92				5193.64
TOTAL	28084.83	28084.83	5795.04		 		79667.63

- 9. Water requirement: During Operation Stage, total water requirement is 284 KLD (fresh water + flushing water). Total Fresh Water requirement is 187 KLD. Total Flushing Water requirement is 97 KLD. Wastewater generated is 228 KLD will be treated in STP of capacity 340KLD and treated water recovered is 182 KLD. During Dry Season the treated water of 182 KLD will be completely used in Flushing (97KLD), Landscape (40KLD) and Road/Vehicle Washing (45 KLD) and during monsoon season 40 KLD of surplus treated waste water will be discharge to nearest drain. Source of fresh water supply will be met through CGWA / municipal water supply main. The project proponent has applied to Central Ground water Board for NOC vide application no 4669 dated 30.12.2022. A total of about 0.66 day's requirement as storage has been propose at site for Underground Raw Water Sump & Underground Treated Water Sump.
- 10. Presently there is no municipal (PHED) water supply system located near our project site. Hence we will meet the daily fresh water requirement through ground water during the operation phase. We applied to CGWB for ground water. When public supply water system is available around the project site, then we will use the supplied water to meet the daily fresh water requirement. We will keep the groundwater for standby.

S.No.	Description	No. of Floors	No. of	Total	Total No. of	Total water requirement		Flushing	water	Treated water recovered
	INTERNAL - FLATS									<u>.</u>
1	BLOCK-1			_						
a)	38ed Room Flat	12	12	140	700	94500	63000	31500	75600	60480
	5 Bed Room Flat	12	2	24	168	22680	15120	7560	18144	14515.2
2	BLOCK-2								_	
	3Bed Room Flat	12	12	140	700	94500	63000	31500	75600	60480
b)	5 Bed Room Flat	12	2	24	168	22680	15120	7560	18144	14515.2

JNayak, Environmental Scientist, SEAC

S,No.	Description	No. of Floors	No. of Flats/Floor		Total No. of Population	Total water requirement	Fresh	Flushing	Waste water generate	Treated water recovered
3	BLOCK-3							_		
a)	1Bed Room Flat	11	9	99	297	40095	26730	13365	32076	25660.8
				427	2033	274455	182970	91485	219564	175651.2
4	Society Room	<u></u>			52	780	260	520	624	499.2
5	Floating Popoulation				203.3	9148.5	4066	5082.5	7318.8	5855.04
	<u> </u>				2288.3	283603.5	187036	96567.5	227506.8	182005.44
	TOTAL		.I <u></u>	1	2288	284 KLD	187 KLD	97 KLD	228 KLD	182 KLD

- 11. Wastewater management/STP: Wastewater generated during the operational phase from will be treated in well-designed sewage treatment plant having capacity of 340 KLD. Approximately, 228 m3/day of wastewater will be generated during the operational phase from domestic use and other uses.
- 12. Rainwater harvesting details: The total discharge from the total catchments area of 14243sqm. would be 160.1 cum/10 minutes storm, assuming 100mm/hour rainfall intensity. It has been calculated to provide 13 Nos of storm water collection or recharge pits for storm water harvesting at selected locations, which will catch the maximum surface run-off water and roof water will be stored in a storage tank having capacity of 250 m³. The volume of harvesting pits is 24 m³.
- 13. Power requirement: The power supply shall be supplied by TPCODL. The maximum demand load is estimated at 2313 KW. Back up DG sets. is 2 x 400 KVA with stack height of 42.7 metres. Permission for Electrical supply to the proposed project site is received from office of the Divisional Manager (Electrical) on dated 09/07/2021. It is proposed to have 4No's of 500KVA & 1 No's of 315KVA Transformer for Apartment & 1 No's of 400KVA Transformer for Common Area. 2nos of 400kVA DG sets are planned at podium service yard area with set acoustics to meet the demand. The Diesel Consumption of 400KVA DG set at required full demand of around 100 Litres/hour. The Bulk diesel storage tank is not planned but suggested to store 200L drums at those locations. There is provision of Power backup for the residential project will be through DG sets of total capacity 800 KVA (2 No. 400 KVA) silent DG Set.
- 14. Solar power supply: Approximately 10KWp solar PV system is proposed on the club house terrace. Solar system is planned with String inverters of 5/7.5KW range and without batteries so that power generated can be directly used.
- 15. Parking details: As per Cuttack Building Bye-laws and NBC-2016, Parking Area Required for Residential area Block-1 & 2 is 18637.11 sqm. (30% of the FAR area of block-1 & 2 including visitors parking). Parking area provided for Residential area Block 1 & 2 is 19098.97 sqm (31% of FAR area of block-1 & 2 including visitors parking). No. of ECS provided is 555 nos. Parking required for Block-3 (EWS) @10% of FAR Area of 5795.04



sqm is 579.504 sqm. Total parking provided for Block-3 (EWS block) is 645 sqm (including visitors parking). Number of ECS provided is 28.

PARKING PROVIDED FOR B-1 AND B-2 AND SERVICE BLOCK ECS						
In Basement	16356.97	Sqm	511			
In Open Area	1002	Sqm	44			
Total	17358.97	Sqm	555			
visitors parking @10% of total parking	1740	Sqm	87			
Total parking Provide (30.81% of FAR area)	19098.97	Sqm	642			
PARKING PROVIDED FOR BLOCK-3 (EWS UNITS)						
Parking required for EWS @10% of BUILT UP AREA	579.504	Sqm				
Parking provided in open area	182		9			
Parking provided in stilt floor	403.1	Sqm Sqm	9			
TOTAL	585.1	Sgm	 27			
visitors parking required @ 10 % 585.1Sqm	58.51	Sqm				
Parking provided in open space	60	Sqm	3			
Total parking Provide	645	Sqm	30			
Total parking required for EWS block	461.61	Sgm				
Total parking Provided for EWS block	645.1	Sqm	<u> </u>			
Total ECS PROVIDED			672			
No. of Dwelling Units			072			
Block-1	164					
Block-2	164		-			
Block-3	99					
TOTAL NO. OF UNIT	427					

- 16. Greenbeit: The green area will consist of evergreen tall and ornamental trees and ornamental shrubs to be planted inside the premises. The green area will be developed approx. 7136.56 m² (31.645 % of the plot area for plantation including podium green belt area). Plantation provision will be 300 in numbers. Trees like Azadirachta indica, Cassia fistula, Terminalia arjuna, Butea monosperma etc. and flowering and ornamental plants have been proposed to be planted inside the premises. The plantation matrix adopted for the green belt development includes pit of 2m x 3m size with a spacing of 2 m x 2 m. Multi-layered plantation comprising of medium height trees (7 m to 10 m) and shrubs (5 m height) are proposed for the green belt.
- 17. Solid waste details: The solid waste generated from project will be mainly domestic in nature and the quantity of the waste will be 1.030 Ton/day. Solid wastes generated will be segregated into biodegradable 0.412 T/Day (waste vegetables and foods etc.) and non-

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TNUYAK Environmental Spientist, SEAC biodegradable or recyclable 0.618 Ton/day. (Papers, cartons, thermo-cool, plastics, glass etc.). For Operation Phase Total MSW generated1030 kg/day (Biodegradable- 412 Kg/day and Non-biodegradable waste 618 kg/day).

S.No	Descriptio n	No. of Floor s	No. of Flats/Floo r	Tota I No. of Flat s	Total No. of Population	BIODEGRADABL E	NON BIODEGRADABL E	TOTAL M\$W @0.450KG/CP D
	L - FLATS							
1	BLOCK-1					_		
a)	3Bed Room Flat	12	12	140	700	126000	189000	315000
b)	5 Bed Room Flat	12	2	24	168	30240	45360	75600
2	BLOCK-2							
a)	3Bed Room Flat	12	12	140	700	126000	189000	315000
b)	5 Bed Room Flat	12	2	24	168	30240	45360	75600
3	BLOCK-3							
a)	1Bed Room Flat	11	9	99	297	53460	80190	133650
				427	2033	365940	548910	914850
4	Society Room				52	9360	14040	23400
5	Floating Popoulatio n				203.3	36594	54891	91485
					2288.3	411894	617841	1029735
	TOTAL		· · · · · ·		2288	412 KG/DAY	618 KG/DAY	1030 KG/DAY

18. **Project cost**: Estimated cost of the proposed project is 178.479 Cr. EMP budget includes a capital cost of 179.85 lakhs and recurring cost of 11.3 lakhs. Total Cost for labourers' welfare bear a capital cost of Rs. 3,80,000 and recurring cost of Rs. 3,15,300.

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Component	Capital Cost in Lakh	Description of EMP during Construction	Description of EMP during Operation Phase	Post project Recurring Cost /Annum
Landscaping	10.8	1.5	9.3	1.5
Rainwater Harvesting	10	8.5	1.5	0.7
Solid Waste Management	8.7	2.5	6.2	1.2
STP & WTP	45.9	40.9	5	1.2
Others (Energy saving devices, Fire fighting measures, miscellaneous)	21.5	18.7	2.8	2
Acoustic Enclosure & DG Set Stack	45.5	40.7	4.8	0.8
Environmental Monitoring	7	2	5	3
Solar PV Works & Water Heating System	26.65	2.5	24.15	1
PPE for workers & Health Care	3.8	3.15	0.65	0.5
	179.85	120.45	59.4	11.9

- 19. Environment Consultant: The Environment consultant M/s Visiontek Consultancy Services Pvt. Ltd., Patia, along with the proponent made a presentation on the proposal before the Committee.
- 20. The SEAC in its meeting held on dated 03-05-2023 recommended the following:
 - A. The proponent may be asked to submit the following for further processing of EC application:
- i) Traffic Study Report to be submitted duly vetted by institute of repute.
- ii) Detailed drainage plan, internal drainage details, drainage permission with supporting documents applied for NOC for drainage from concerned authority.
- iii) Copy of all statutory clearances applied/obtained.
- iv) Detailed calculation of greenbelt with breakup and dimensions.
- v) Copy of fire recommendations.
- vi) Width of the road for Fire Tender.
- vii) Detailed break-up of solar power to be generated, consumed, including capacity of PV cell capacity, connected devices and the percentage of solar energy added total power demand.
- viii) Drain connectivity and discharge point.

- ix) Permission/NOC from appropriate authority for laid down of drainage pipe in Government land that connects from proposed site to public drain along the National highway road.
- x) Re-examine and submit revised water balance.
- xi) Clarification for CRZ that the area of proposed site doesn't fall under CRZ, as river bank is within 500m and the canal is passing closely to the site as visible in KML.
- xii) Proposal to increase in usage of treated waste water in premises by segregating grey water and black water and its usage for plantation and car washings and thereby reducing quantity of discharge to drain.
 - B. The proposed site shall be visited by Sub-Committee of SEAC to verify the followings
 - i) Environmental settings of the project site.
 - ii) Construction activity, if any started at the site.
 - iii) Road connectivity to the project site.
 - iv) Drainage network at the site.
 - v) Discharge point for discharge of treated water and distance of the discharge point from the project site.
 - vi) Any other issues including local issues.

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

SI. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
4.	Traffic Study Report to be submitted duly vetted by institute of repute.	Traffic Study Report to be submitted duly vetted by institute is attached as Annexure-1.	Traffic study not vetted. LOS is found to be "B" at present and will also remain B after 10 years.
5.	Detailed drainage plan, internal drainage details, drainage permission with supporting documents applied for NOC for drainage from concerned authority.	During operational phase, Total Water requirement — 284 KLD (fresh water 187 KLD + Flushing 97 KLD) Source: Ground water /Municipal supply water when available at site) Total Wastewater Generation- 150 KLD Wastewater treated in a STP having capacity -340 KLD (MBBR Technology) Treated Water recovered — 182 KLD. Treated Wastewater will be recycled/reused (Greenbelt Development — 40 KLD + Flushing 97 KLD +Road and vehicle Washing- 25 and HVAC cooling-20 KLD) During rainy season 40 KLD of treated waste water will be discharge to nearest Drain /Public	permission with supporting documents applied for NOC for drainage from concerned authority has not been submitted.

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SI.	Information Sought by SEAC	Compliance from takend book	T 100
No.		Compliance furnished by the proponent	Views of SEAC
		sewer as per CPCB Standards. All details are attached as Annexure-2	_ _
6.	Copy of all statutory clearances	Copy of all statutory clearances	NOC from COUNTA
	applied/obtained.	applied/obtained are attached as Annexure-3	NOC from CGWA for 224.91KLD valid till 2028, Electricity permission obtained, Fire Recommendations obtained, NOC from AAI obtained and Application for BDA submitted.
7.	Detailed calculation of greenbelt with breakup and dimensions.	As per Odisha Development Authority and MoEF & CC Plantation required @ 1 no. of tree for 80 sqmt of land area = 281.89 nos. Plantation provided- 300 nos. 1. Total green area measures 7136.56 m2 (31.645 % of the plot area for plantation including podium green belt area). 2. Trees like Gulmohar, Siris, Amaltas, Shisham, Bahera, Palm, Ashoka, Bottle Palm and flowering and ornamental plants have been proposed to be planted inside the premises. Parks will also be developed by the management. 3. Treated wastewater will be used for watering of the plants and garden. 4. The proposed multi layered peripheral greenbelt will provide an habitat for the native fauna. 5. Landscape plan is attached as	Total green area measures 7136.56 m2 (31.645 % of the plot area for plantation including podium green belt area
8.	Copy of fire recommendations.	Annexure-4 Copy of fire recommendations is	- -
9.	Width of the road for Fire Tender.	All internal road width for fire tender movement will be 9m. and width of entrance gate is more than 12 m. Residential Building have been provided separate entry & exit. Four wheeler & two wheelers have separate parking space in both buildings. Layout of internal roads has been so designed	-

SI. No.	Information Sought by SEAC	Compliance furnished by the proponent as to avoid conflict between incoming &	Views of SEAC
No.			
		l as to avoid conflict between incoming & i	
		outgoing traffic. Separate walkway has	
		been provided for pedestrians.	
l		Exits (Type, Number, Dimension &	
ı		Ramp Arrangement)	
	:	Internal roads, footpaths/pedestrian	
		pathways have been planned within the	
		project. In Block-1, 07 Nos. of lifts and 3 nos. of	
		staircases of width 1.30 mtrs. have	
		been	
		proposed in the plan which are	
i		continuing from basement to terrace	
		floor. Similarly, in Block-2, 07 Nos. of	
•		lifts and 3 nos. of staircases of width	
		1.30 mtrs. have been proposed in the	
		plan which are continuing from	
ļ		basement to terrace floor. The clear	
		width of the stairway of the staircase	
		shall not be less than 1.25 mtrs. The	
		minimum width of treads without nosing	
		shall be 250 mm. The maximum height	
		of riser shall be 190 mm and shall be	
		limited to 12 risers per flight.	
		The travel distance to an exit on any	
		floor shall not exceed 20 meters. Exit	
		doorways shall not be less than 01	
		meters in width and not less than 02	
		meters in height. As per plan the	
		internal staircases are proposed to be	
		constructed with external walls. The	
		staircases required to be pressurized	
		along with provision of Fire Check	
		Doors at each floor. However, the	
		naturally ventilated exit staircases may	
		not require provision of Fire Check	
		Doors. The natural ventilation	
		requirement in the staircases shall be	
		achieved through opening at each	
		landing of an area of 0.5 sqm. on	
		external wall. If mechanism for	
		pressurization is provided this shall be	
		integrated with fire alarm system. Door	•
		openings leading from upper floors to	
		basement shall need to be protected	
		with	
		fire doors with 120 min. Staircases	
		terminating at basement needs to be	
		segregated from the other parts of the	



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SI.	Information County by OF 40	0	
No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	<u> </u>	basement and pressurization shall be	· · · · · · · · · · · · · · · · · · ·
		provided for staircases in building those	
		are proposed to communicate from	
		ground to basement. Provision of Fire	
		Check Door of 02 Hours rating needs	
		to	
]		be provided for both the staircases	
		terminated at basement level.	
		Pressurization shall be done as per the	
		provisions given in Clause-4.4.2.5 of	
		Part-IV, NBCI-2016. External exit door	
	İ	of staircase enclosure at ground level	
		shall open directly to the open spaces	
		or can be reached without passing	
		through any door other than a door	
		provided to form a drought lobby. In	
		addition to above other provisions for	
		exits/doorways/stairways/corridor shall	
ĺ		be made as per Clause 4.2 to 4.6.2 of	
		NBCI-2016 and Annexure-III of ODA	
		(P&BS) Rules, 2020. Exit Signage: -	
		Exits shall be clearly visible and the	
		routes to reach the exit shall be clearly	
		marked and sign posted to guide the	
	•	population of the floor concerned.	
Ì		Signs shall be illuminated and wired to	
		an independent electrical circuit or an	
		alternative source of supply. The colour	
		of exit signs shall be green. Exit signs	
		shall be provided such that no point in	
		an	
		exit access will be more than 30 mtrs	
		from a visible exit directional sign. Provision of escape lighting and exit	
		signage shall be made in accordance	
		to	
		Clause-3.4.7.1 to 3.4.7.4 of Part-4,	
		NBCI-2016 & relevant BIS. All details	
		and fire tender movement plan area	
		attached as Annexur-6.	
10.	Detailed break-up of solar power to	SOLAR POWER (SPV)	-
	be generated, consumed, including	Maximum Demand for Apartments-	
	capacity of PV cell capacity,	2313.00 KW	
	connected devices and the	Simultaneous Demand @ 80%	
	percentage of solar energy added	diversity- 1850.4 KW	
	total power demand.	Solar PV 5% on total Electrical	
		Demand -92.52 KW	
		kVA @ 0.8 Power Factor -115.7 KVA	

SI.	Information Sought by SEAC	Compliance furnished by the	Views of SEAC
No.	illioitilation Sought by SEAC	proponent	7,0113 01 02713
110.		Hence required solar PV- 115 KVA	 ,
		SOLAR POWER SUPPLY	
		AS per GO 168 & EIA	
l		recommendations, Solar V plant	
1		of capacity to meet the	
		requirement of Common areas	
		and External Lighting shall be	
		planned on terrace.	
		 Based on the space availability 	
		on club house Terrace floor, the	
		Solar system of suitable	
l		capacity shall be planned to	
ļ		cater the partial requirements of	
		the clients.	
1		Approximately 10KWp solar PV avotem is prepaded on the club.	
		system is proposed on the club house terrace	
		 Solar system is planned with 	
		String inverters of 5/7.5KW	
		range and without batteries so	
		that power generated can be	
		directly used.	
		 Solar PV power shall be 	
		connected to Raising mains	
		with XLPE aluminum conductor	
		armored cables.	
11.	Drain connectivity and discharge	Details of Drain connectivity and	In Google map
	point.	discharge point is attached as	drainage layout
		Annexure-7	submitted, showing the route
			map for discharge
			point from project
			site.
12.	Permission/NOC from appropriate	Application submitted to CDA for laid	Nothing is
	authority for laid down of drainage		. •
	pipe in Government land that	· · ·	this query.
į	connects from proposed site to	to public drain along the National	
	public drain along the National	highway road.	
- 4.6	highway road.	Data de la constanta de la con	NI= alsasses *
13.	Re-examine and submit revised	Details of water balance is attached as	No change in
	water balance.	Annexure -2	water balance
11	Clarification for CRZ that the area of	Only Environment Clearance is	submitted. To be decided by
14.	proposed site doesn't fall under	Only Environment Clearance is required for the proposed project.	SEAC
	CRZ, as river bank is within 500m	required for the proposed project.	
	and the canal is passing closely to		
	the site as visible in KML.		
15	Proposal to increase in usage of	Sub soil cum surface drain system is	

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SI.	Information Sought by SEAC	Compliance furnished by the	Views of SEAC
No.		proponent	OI DEMO
1	Information Sought by SEAC treated waste water in premises by segregating grey water and black water and its usage for plantation and car washings and thereby reducing quantity of discharge to drain.	proposed with RCC Trench, top covered with perforated grating to collect the surface water and bottom shall be placed with coarse aggregate & perforated pipe (pipe wrapped with geotextile cloth), further connect to the collection sump at basement-2 floor level & collected water disposed with an automatic pumping system. Proposed drain points for all upper basement floor area & ramps and these drains shall discharge into the main drain network in the basement-2 level. The Drain from all Wet areas like Fire Pump/ Water Pump rooms/ Lift pits shall be discharged into Catch basins at 2nd basement level. The Sump shall be equipped with fixed type submersible sump drainage pumps (both working and Standby), which shall automatically operate based on a level switch and controller system. In case of major flooding, both pumps shall operate and discharge pipes is to be planned for the same The pumps shall discharge the drain water outside the building into the external storm water drainage system. INTERNAL PLUMBING SYSTEMS: Plumbing System Adopted: Two pipe (stack) system as recommended in code of practice for soil and waste pipes above ground (I.S: 5329 1964). This implies there are separate vertical stacks as per the following:	Views of SEAC
		INTERNAL PLUMBING SYSTEMS: Plumbing System Adopted: Two pipe (stack) system as recommended in code of practice for soil and waste pipes above ground (I.S: 5329 1964). This implies there are separate vertical stacks as per the following: Soil Pipes shall carry the wastes from	
		WC. Waste Pipes shall carry the wastes from Wash Basins, Sinks, Floor Drains, etc. Rainwater Pipes shall also be provided which shall dispose outside the building into the external catch basin chambers / external drains. To ensure that the plumbing system is	

SI.	Information Sought by SEAC	Compliance furnished by the	Views of SEAC
No.	•	proponent	
		unhindered, all wet areas shall be designed with the following structural	
'		provisions.	

- 22. The proposed site was visited by the sub-committee of SEAC on **14.07.2023**. Following are the observations of the sub-committee:
 - a) PP and Consultant were present along with other team members. The Building site of project area has no hindrances like trees, overhead electric lines etc.
 - b) There is no construction activity started at site.
 - c) There is an earthen approach road within project area from Puri canal side to be improved by the PP. There are some trees on both sides of this approach road. PP has to do plantation to meet the green belt requirement as per their proposal.
 - d) Road connectivity to site is available from NH at Pratapnagari about 2 km out of which a portion is unsurfaced. Another connectivity proposed by PP via Puri Canal embankment is not an all-weather connectivity road. PP stated that this canal road is to be used for main access to their project site. They have applied for permission from competent authority of Government for use of canal road including construction of a bridge over canal. PP may be asked to submit copies of such proposals to Government and acceptance letter of competent authority for use of canal road and construction of the bridge.
 - e) The project site is a flat low land which requires to be properly planned for drainage of surface water with reference to maximum rainfall data and highest ground water table recorded during rainy season. PP may be asked to submit detailed drainage plan with mention of RLs. There is no natural Nallah available for discharge of rain water from project site. PP showed a low lying water logged area for discharge of excess run off during rain. Effect of such release of runoff water may affect nearby paddy fields which needs to be studied and PP may be asked to submit a report on this along with drainage plan.
 - f) Consultant stated that their proposal is for zero discharge of treated water. PP may be asked to submit detailed report justify this.
 - g) PP was asked to submit required documents as asked during presentation.

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

a) Road connectivity to site is available from NH at Pratapnagari about 2 km out of which a portion is unsurfaced. Another connectivity proposed by PP via Puri Canal embankment is not an all-weather connectivity road. PP stated that this canal road is to be used for main access to their project site. They have applied for permission from competent authority of Government for use of canal road including construction of a bridge over canal. PP may be asked to submit copies of such proposals to Government and acceptance letter of competent authority for use of canal road and construction of the bridge.

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Environmental Scientist, SEAC

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- b) The project site is a flat low land which requires to be properly planned for drainage of surface water with reference to maximum rainfall data and highest ground water table recorded during rainy season. PP may be asked to submit detailed drainage plan with mention of RLs. There is no natural Nallah available for discharge of rain water from project site. PP showed a low lying water logged area for discharge of excess run off during rain. Effect of such release of runoff water may affect nearby paddy fields which needs to be studied and PP may be asked to submit a report on this along with drainage plan.
- c) Consultant stated that their proposal is for zero discharge of treated water. PP may be asked to submit detailed report justify this.
- d) Permission/NOC from appropriate authority for laid down of drainage pipe in Government land that connects from proposed site to public drain along the National highway road.
- e) Detailed drainage plan, internal drainage details, drainage permission with supporting documents applied for NOC for drainage from concerned authority.
- f) Traffic Study Report has been submitted but not vetted. Traffic Study Report duly vetted by institute of repute to be submitted.
- g) The PP has to obtain necessary permission of the CGWA for utilisation of the ground water necessary during operational phase of the project in the absence of supply of PHED water.

<u>ITEM NO. 07</u>

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR PROPOSED EXPANSION OF RESIDENTIAL COMPLEX "MANI TRIBHUVAN" (FORMERLY KNOWN AS "MANI TIRUMALA") OVER A BUILT-UP AREA 76050.80SQM AT MOUZA: KALARAHANGA, P.S: CHANDRASEKHARPUR, NANDAN KANAN ROAD, DIST. KHURDA OF SRI PRITHIWIRAJ MUKHERJEE – EC

- i) This proposal is for environmental clearance for proposed expansion of residential complex "Mani Tribhuvan" (Formerly Known as "Mani Tirumala") over built-up area of 76050.80 sqm at Mouza: Kalarahanga, P.S: Chandrasekharpur, Nandan Kanan Road, Dist. Khurda of Sri Prithiwiraj Mukherjee.
- ii) Category: The project requires prior Environmental Clearance under the provisions of EIA Notification, 2006 and subsequent amendment and falls under Category B of activity 8(a)-Building & Construction projects.
- iii) Project details: Mani Tirumala Projects Pvt. Ltd., the project proponent has completed the construction of the residential complex "MANI TRIBHUBAN" (Formerly known as "MANI TIRUMALA") at Plot Nos. 13,15,21 to 31, 33, 36, 37,38,28/2573, 40 to 49, 58, 59 & 125 (Part), Mouza- Kalarahanga, P.S.- Infocity, Nandan Kannan Road, District- Khurda, Odisha. The Project Proponent under the Existing part of the project has constructed 11 Blocks of buildings of G+14 configuration comprising of 603 dwelling units. 22 additional flats have been constructed in the existing 11 Towers. Out of these 22 flats, 16 (sixteen) flats have been built by rearranging the ground floor and 6(six) flats are constructed as

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- upper floors in the 11 existing towers. The current configurations of dwelling units stand at 625 nos.
- iv) Additionally, as a part of earlier proposal, minor civil constructions of few blocks of G+5 & G+6 configurations have been carried out up to different stages. The proposal had been later dropped and the proponent has decided that these structures will be all demolished. This matter has been already recorded and documented in Page 53 of 68 of the Proceedings of the SEAC meeting held on 19.03.2021.
- v) Terms of Reference (TOR) has been granted by SEIAA, Odisha vide letter no. 3345/SEIAA, dated 12.10.2021 under Violation Category.
- vi) Existing Environment Clearance was granted by SEIAA vide letter no. SEIAA/200/ENV dated 02.04.2011.
- vii) BDA has approved the building plan vide letter no. 3537/BDA/Bhubaneswar, dated 13.02.2017.
- viii) Location and Connectivity: The proposed site is located at Kalarahanga, Bhubaneswar, Odisha. The geographical co-ordinate of the project site is Latitude 20°22'9.08"N & Longitude 85°50'3.35"E. The project site is well connected with Nandan Kanan road which take towards National Highway-16 (Kolkata-Chennai Road). Nandan Kanan road is 0.1 Km from proposed site. The nearest railway station is Mancheswar Railway station at a distance of approx 5.0 Km in South direction. The nearest airport is Biju Patnaik Airport at a distance of approx. 13.0 Km in South direction from project site. The site is easily accessible from Nandan Kanan Road.
- ix) Comparative Land details: The total plot area of the existing & proposed project will be41,075.20sqm and built up area of existing project is 76,050.80sqm & built up area of proposed project (22 Flats) is 1906.66 sqm, so total built up area of the existing & proposed project is 77957,46 sqm.

Table: Comparative statement

SI.	Features	Phase-1	Additional	Current
No.		As PerEnvironmental Clearance Vide Ref. No. SEIAA/200/Env Dated02.04.2011	22 Flats In 11	Scenario
i)	Land Area	41075,20 SQM	0.00 SQM	41075.20 SQM
ii)	Configuration	11 blocks of G+14 storied comprising of 603 flats with a Club house	added in the existing 11 blocks.	of 625 Flats with a Club House

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SI. No.	Features	Phase-1 As PerEnvironmental Clearance Vide Ref. No. SEIAA/200/Env Dated02.04.2011	22 Flats In 11 Towers	Current Scenario
iii)	No. of flats	603 Nos	22 Nos	625 Nos
iv)	Built-up area	76050.80 SQM	1906.66 SQM	77957.46 SQM
v)	Population	3317 persons permanent residents, 302 persons for Club	110 persons	3427 persons permanent resident 302 persons for Club
vi)	Total water requirement	566.7 KLD	16.40 KLD	583.1 KLD
vii)	Wastewater generation	428.2 KLD	13.30 KLD	441.5 KLD
viii)	Treated wastewater from STP		12.97 KLD	428.27 KLD
ix)	Treated wastewater recycled	259.8 KLD	6.11 KLD	265.91 KLD
×)	Treated wastewater discharged	168.9 KLD	6.86 KLD	175.76 KLD
xi)	STP capacity	450 KLD (350KLD +100KLD)	Wastewater will be treated in the existing STPs	450 KLD (350KLD +100KLD)
xii)	Solid Waste generation	1.50 TPD	0.058 TPD	1.558 TPD
	Total Power Requirement	3938.00 KW	130.00 KW	4068.00 KW
xiv)	DG sets	4x250KVA, 2 x 380 KVA	suffice additional back- up	1x125KVA
xv)	Rainwater Recharge pits	06 Nos	No Change	06 Nos
xvi)	No. of Car Parking	653 Nos	22 Nos	675 Nos
xvii)	Green Area	5596.00 SQM	0.00 SQM	5596.00 SQM

x) Water requirement: Total water demand for the proposed expansion part of the residential complex project during operation stage will be around 16.40 KLD. Daily freshwater requirement to the tune of 10.29 KLD will be sourced from Ground Water Supply System. Relevant permission from the respective authorities has already been obtained. In addition, treated wastewater to the tune of 6.11 KLD will be utilized in toilet flushing, landscaping and car washing, etc.

SI. No	Category	Population	Per capital Water demand (LPCD)	Water demand (KLD)			Type of water	
			-	Domestic (KLD)	Flushing (KLD)	Total (KLD)	Fresh (KLD)	Treated (KLD)
i)	Residential Population	110	135	9.90	4.95	14.85	9.90	4.95
ii)	Floating Population	11	15	0.06	0.11	0.17	0.06	0.11
iii)	O & M Population	11	45	0.33	0.17	0.50	0.33	0.17
iv)	Car wash (nos.)	22	-	-	-	0.88	- -	0.88
	TOTAL	- 		10.29	5.23	16.40	10.29	6.11
	1	•	TOTAL WATER RI	QUIREMEN	T: 16.40 KLI	<u> </u>		ı

- xi) Wastewater Treatment: It is expected that the project generates approx. 428.2 m³/day of wastewater. Wastewater generated in additional 22 nos. of flats is 13.3 KLD which is treated in existing STP of capacity 330 KLD & 100 KLD. STPs is based on SBR (Sequential Batch Reactor) Technology have been set up for the existing configuration of the 11 Towers.
- xii) Solid Waste Generation and Its 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 110 x 0.40 = 44.0 kg/day. The generated solid waste from the residential complex will be segregated as biodegradable and non-biodegradable. This will be collected in separate-colored beans. Proper waste management practices will be adopted during the collection, storing and disposal of the generated solid waste. Waste generated from Floating people will be @ 0.15 kg/capita/day, which will be about 3.3 kg/day. Waste generated from Street Sweeping will be 11.0 kg/day.

SI. No.	Category	Population	Rate (in kg/day)	Total (in kg/day)
i)	Residential Population	110	0.4	44
ii)	Floating Population	11	0.15	1.65
iii)	O&M Population	11	0.15	1.65
iv)	Street Sweeping	110	0.1	11
		Total - 58.30 kg/d	lay	

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- xiii) Rainwater harvesting: Rainwater harvesting has been catered to and designed as per the guideline of CGWA. Peak hourly rainfall has been considered as 85 mm/hr. The recharge pit of 3.0 m length, 3.0 m breath and 2.5 m depth is constructed for recharging the water. At the bottom of the recharge well, a filter media is provided to avoid choking of the recharge bore. Total no. of rainwater harvesting pits provided will be 06 Nos.
- xiv) Power requirement: The total consolidated electrical load estimate for project is about 4068 KW. Power will be supplied by 11 KV source of TPCODL. Also, in case of power cut, 100 % power backup generator will be provided for common uses only. For this purpose, diesel generator having 200 KVA 2 X 320 KVA, 1 X 125 KVA capacities will be provided. There are 10 kw of Solar Panel is installed at site.
- xv) **Greenbelt:** Green belt is developed over an area of 5596 sqm; by using the local species like Radhachuda, Nageswar, Akash Neem, Ashok, Polanga, Karang, Bela, Pijilu, Kaniara, Tagar, Hena, etc.
- xvi)The cost assessment related to environmental degradation and its remediation would be: Rs.28,20,891.00.
- xvii) Total Budgetary Allocation as per the table:

Sr. No.	Description	Estimated Cost (Rs.)
i)	Estimated cost of damage / remediation with respect to ecological aspects	28,20,891
ii)	Community resource augmentation plan	50,000
	Net Expenditure:	28,70,891

New Ambulance has been provided to Sri Sri University, Odisha of cost Rs. 3,49,585.00.

- xviii) The project have applied for grant of EC under the Violation Window on 12th Sept 2017, hence the project doesn't fall under the Penalty Provisions as per Notification F. No. 22-21/2020-IA.III, dated 07.07.2021. Hence the project proponent has requested for waived off towards penalty provision clause.
- xix) Project cost: Estimated Project cost is around Rs. 80 Crores and environment management cost is Rs 3.6 Crores.
- xx) Environment Consultant: The Environment consultant M/s. Centre for Envotech& Management Consultancy Pvt. Ltd., Bhubaneswar, along with the proponent made a presentation on the proposal before the Committee on dtd. 14.02.2023.
- xxi) The SEAC in its meeting held on dated 14-02-2023 recommended the followings;
 - i) The proponent may be asked to submit the following for further processing of EC application.
 - a) Undertaking by PP to carryout demolition of minor civil constructions of few blocks of G+5 & G+6 configurations as per ToR conditions, within a stipulated time frame and submit detail time scheduled for demolition.

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- b) NOC/permission from concerned authority for discharge of additional quantity of treated waste water to nearest drain.
- c) Details of solar power generation along with calculation. Revised EMP budget incorporating cost of solar installation.
- d) Provide photographs of rainwater harvesting structures. Provide the location of rain water harvesting structures along with photographs.
- e) Certified compliance report to earlier EC conditions from MoEF&CC, Govt. of India.
- ii) The proposed site shall be visited by Sub-Committee of SEAC to verify the followings;
 - a) Construction activity, if any started for the project at the site.
 - b) Progress of the demolition work as recommended in ToRs.
 - c) Any other issues.
- xxii) The proposed site was visited by the sub-committee of SEAC on 29.03.2023. Following are the observations of the sub-committee:
 - a) Both PP and Consultant with other team members were present.
 - b) During visit, it was observed that, demolition of the unauthorized construction is going on. PP informed that the work of demolition will be done by a month maximum. No fresh construction done in this area.
 - c) Installation of solar PV panels were observed at the roof top
 - d) Green belt, drain and road facilities are available.
 - e) Other documents as asked during presentation to be submitted.

xxiii) The proponent has furnished the compliance and the SEAC verified the same as follows:

SI.	Information Sought by SEAC	Compliance furnished by the	Views of SEAC
No.		proponent	
1.	Undertaking by PP to carryout demolition of minor civil constructions of few blocks of G+5 & G+6 configurations as per ToR conditions, within a stipulated time frame and submit detail time scheduled for demolition.	progress. During the site visit of subcommittee of SEAC, the demolition work was ongoing at its full swing.	Complied and Annexure -1 is attached.
		Annexure -1.	
2.	NOC/permission from concerned	, -	NOC not
	authority for discharge of	obtained from Bhubaneswar	attached for

Proceedings of the SEAC meeting held on 29.04.2024 (Old proposals – compliance received)

V

SI.	Information Sought by SEAC	Compliance furnished by the	Views of SEAC
No.	additional quantity of treated water to nearest drain.	no. 66/EM, dated 08.01.2015. During construction of additional 22 nos. of Flats minor waste water i.e 6.86 KLD is discharged to nearest drain. The drainage permission is	discharge of additional quantity of treated water to
3.	along with calculation. Revised	attached in Annexure-2. Please find attached a note on details of solar power generation of 106kw annexed hereto as Annexure -3.	Solar energy proposed is too less.
4.		Total 06 nos. of Rainwater	Annexure -4 and 5 is attached.
5.		The Certified Compliance report of earlier EC has been obtained from IRO Bhubaneswar vide letter no. 109-34/2022-EPE, dated 04.11.2022. The certified compliance report is attached in Annexure - 6.	-

- xxiv) The project proponent has intimated that they have applied for grant of EC under the Violation Window on 12th Sept 2017, hence the project doesn't fall under the Penalty Provisions as per Notification F. No. 22-21/2020-IA.III, dated 07.07.2021. Hence the project proponent requested that penalty provision clause may kindly be waived out.
- xxv) The SEAC in its meeting held on dated 13-07-2023 decided to take decision the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

SI. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	NOC for discharge of additional quantity of treated water to nearest drain is not attached.	Dear Sir, please note that the NOC in this regard was accorded by the Panchayat. Furthermore, the BDA had also directed the project Proponent to use the nearest drain (Budhi-Nala) for discharge of additional quantity of treated water. Please find the NOC of the Panchayat, letter of BDA and Building Permit by the BDA attached herewith marked with	The PP has submitted No Objection certificate from Panchayat and BDA since there is no facility for public drain, and PP have to construct their own

SI. Information	Compliance furnished by the proponent	Views of SEAC
No. Sought by SEA	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	
	Annexures "A", "B" & "C" respectively.	drainage system to nearest drain for the proposed building.
2. The project proponent indicate to system of sto water drainage rainwater harvesting system and recharge week.	marked with Annexure "D" which indicates the system of storm water drainage and rainwater harvesting. The said plan also provides sections of the storm water collection sump and the recharge wells constructed at the Project.	Layout submitted showing the details.
3. Total cost of toproject & to turnover cost.	tal at Rs. 70 crores, which finally came to Rs 100.34 crores. The total Turnover of the Project has come to Rs. 180.48 crores. Please find attached as Annexure "E" as certificate from as Chartered Accountant certifying the same.	As certified by JKK & Company LLP, Kolkata Chartered Accounts.
dtd. 07.07.2021 MoEF& CC, Go of India regard SoP for violat cases stipula that percentage ra of penalty shall halved if project propone suo-moto repo such violation without su violations com to the knowled of the Governme either on inquiry complaint. In t case, the violat has be identified at time of apprai of the proposal grant Environmental Clearance. Further, the co on dtd. 07.07.20	Dear Sir, the above Clarification has been in two parts. Firstly. Please draw your attention towards a portion of the above clarification set out hereundervit. The OM F No.22-21/2020/IA.III dtd.07.07.2021 of MoEF& CC, Govt of India regarding SoP for violation cases stipulates that the percentage rates of penalty shall be halved if the project proponent suo-moto reports such violations without such violations coming to the knowledge of the Government either on inquiry or complaint. In this case, the violation has been identified at the time of appraisal of the proposal for grant of Environmental Clearance. Please draw your attention towards the second paragraph of the Notification bearing OM F No. 22-21/2020/IA.III dtd. 07.07.2021 of MoEF& CC, Govt. of India. Please note here that the Notification first came into existence on 14.03.2017 and was applicable for a period of six months from the date of publication. Now in our case, we had made as application to SEAC, Odisha before the notification came to existence. Thereafter, once we learnt about the abovementioned Notification, we applied under the Violation Window vide letter dated 11.09.2017 (Annexure "F"). Please find set out below the first two paragraphs of the letter dated 11.09.2017- "Recently we learnt from the Gazette of India MoEF Notification dated 14.03.2017 that we have to apply the EAC Dalbi under violation and for the paragraph of the letter dated 11.09.2017-	

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SI. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		project. In accordance with the above we are enclosing documents as required for your kind perusal". Sir, the project proponent humbly submits that there was no complaint made against the project proponent and there was no inquiry initiated by SEAC, Odisha because of which, violation came to the notice to the Department. Hence, we pray that such facts be given due consideration. Secondly, please draw your attention to the other part of the same clarification here in below — The OM on dtd. 07.07.2021 is applicable for the violation cases which has not been disposed of after date of notification of the OM i.e. 07.07.2021, Hence, the claim of the proponent that they have applied for grant of EC under the violation Window on 12 th Sept 2017, hence the project doesn't fall under the Penalty Provisions as per Notification F No. 22-21/2020-IA.III, dated 07.07.2021 is not acceptable. The proponent has to deposit the penalty as per percentage given in the OM dtd. 07.07.2021 and detailed calculation to this effect shall be submitted. Please draw your attention towards paragraph Nos. 5 & 6 of the Notification bearing OM F No. 22-21/2020/IA.III dated 07.07.2021 of MoEF& CC, Government of India which reads as under — "5. Therefore, in compliance to the directions of the Hon'ble NGT a standard Operation Procedure (SoP) for dealing with violation cases is required to be drawn. The Ministry is also seized of different categories of 'Violation' cases which have been pending for want of an approval structural / procedural framework based on 'polluter pays principal' and 'Principal of Proportionality'. It is undoubtedly important that action under statutory provisions is taken against the defaulters / violators and a decision on the closure of the project or activity or otherwise is taken expeditiously. 6. In the light of the above directions of the Hon'ble Tribunal and the issues involved, the matter has accordingly been examined in detail in the Ministry. A detailed SoP has accordingly been framed and is outlined herein.	

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SI.	Information	Compliance furnished by the proponent	Views of SEAC
N <u>o.</u>	Sought by SEAC		<u> </u>
_		The 'polluter pays principal' is a principal whereby	
		those who commit violation should bear the cost of	
		managing it in order to prevent harm to human	
		health and environment.	
		The 'principal of proportionality' is a general principal in law which is used as a criterion of fairness &	
		justice in statutory interpretation processes,	
		especially in constitutional law, as a logical method	
	•	intended to assist in discerning the correct balance	
		between the restriction imposed by a corrective	
		measure and the severity of the nature of the	
	1	prohibited act. In other words, an administrative	
		action should not be more drastic than it ought to be.	
		Thus, the punishment imposed by an administrative	
		body must be reasonable and not excessive.	
		Now please draw your attention towards point No.	
		12 of the abovementioned Notification having the	
	ļ	title "Penalty provisions for Violation cases and	
		applications", Sub-Clause 12(b)(ii) states as below -	
		"Where operation / production with expand capacity	
		have commenced: 1% of the project cost	
		(attributable to the expansion activity) incurred upto	
		the date of filing of applicable along with EIA/EMP	
		report PLUS 0.25% of the total turnover (attributable	
		to the expanded activity / capacity) involved during	
		the period of violation."	
		Now Sir having brought to your attention the relevant	
		provisions of the Notification mentioned here in a	
		above, please draw your attention towards the Application made under the Violation Window dated	
		11.09.2017 (Annexure "E"). "" We had made a application to SEIAA, Odisha on	
		12.02.2017 for Phase-2 of our project where we had	
		proposed to expand our project and consequently	
		presentation was made before SEAC, Odisha on	
		27.03.2017.	
		The SEAC members had certain queries and issued	
		us a clarifications letter having Memo No. 258(3)/	1
	Į	SEAC-Misc-28 dated 03.04.2017.	
		Sir, hereby inform humble submission of the project	
		proponent that penalty should be imposed under	
		Point No. 12(b)(ii) and NOT undr Point No.12(a)(ii) of	
	1	the Notification.	
		Sir, please also consider certain facts in the instant	
		case listed out below -	
		Although the member of flats have in the	
		increased from 603 to 625, but the project	
		area has not increased proportionately as	
ļ		some of the additional flats have been	
		carved out by re-arranging car parks and/or	
		flats within the sanctioned area. Thus, the	

SI.	Information	Complian	o furnished by	<u> </u>		
No.	Sought by SEAC	Compilant	e furnished by t	Views of SEAC		
NO.	Sought by SEAC	imp non table pres	act of this violation e. Please draw you e below which sentation to the nbers. Phase-1 As per Environmental Clearance Vide Ref No.SEIAA/200/ Env Dated 02.04.2011	Additional Construction 22 Flats In	gible, if not n towards a so a part committee Current Scenario 625 Nos 77957.46 SQM 3427	VIEWS OF SEAC
		increase. Notification proportional which goes	residents, 302 persons for Club tant case, Units It to 625 which is low please imaging of Units were in its approximately 56 hat both the case alty under point which goes against the principal the entire Notifical (b)(ii) should apple	nave been approxirue, if in an creased from increases would No. 12(a) inst the proper incoming the pal of propertion is bas	nately 4% other case om 603 to se. It is our attract the (ii) of the rincipal of Notification portionality	

xxvi) The Committee observed the following:

- a) Justification given by the proponent for exemption of penalty is not acceptable as it is not co-related to the illegal construction comparing to the construction work has already carried out as per the Environmental Clearance and demolition work has already done towards the illegal construction.
- b) PP as mentioned above in the table in last part want penalty as per 12 b ii which applies to the expansion cases. It is also an expansion case. So PP has to clarify if they are asking for exemption or want to be covered under category 12 b ii and not 12 a ii (which is for new projects).

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- c) It is stated that the PP has to construct its own drain or facilitating discharge of excess treated sewage water as well as rainwater to Budhi nala. The PP needs to submit land documents evidencing its unhindered access to Budhi nala for the proposed drain.
- xxvii) The SEAC in its meeting held on dated 13-11-2023 decided to take decision on the proposal after the proponent submit detailed information / documents as pointed out at para xxvi above.

xxviii) The proponent has furnished the compliance and the SEAC verified the same as follows:

SI. No.	Information Sought by SEAC	Compliar	ice furnish	ed by the p	roponent	Views of SEAC		
1.	Justification given by the proponent for exemption of penalty is not acceptable as it is not co-related to the illegal construction comparing to the construction work has already carried out as per the Environmental Clearance and demolition work has already done towards the illegal construction.	picture of the site evidencing the same. Please also find attached as Annexure "C", a declaration in this regard.				did t t n s r 1 di e n		
2.	PP as mentioned above in the table in last part want penalty as per 12 b ii which applies to the expansion cases. It is also an expansion case. So PP has to clarify if they are asking for exemption or want to be covered under category 12 b ii and not 12 a ii (which is for new projects).	site as menti	oned here details of lines beer	in above of the actual so appended Actual Scenario 41075.20 SQM	ruction at the loes not exist situation is the below: Remarks No Change The additional Built-up area of 1906.66 SQM has been mostly executed by rearranging car parks and/or flats	The PP has mentioned in view of nominal increase in the number of units has led to no adverse impact on the environment. Thus, requested for exemption and if exemption is not acceptable by the respected Committee members, the PP should be covered under category 12 b (ii) and not under 12 a (ii).		

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SI. No. Information Sought by SEAC
Sanctioned area and has been since regularized by the BDA Nos. of 603 625 The additional 22 units have also been regularized by the BDA vide letters dated by the BDA vide letters dated 13.02.2017 and 16.01.2019, attached herewith marked with Annexure "D" In view of the above, this nominal increase in the number of units has led to no adverse impact on the environment. Thus, if exemption is not acceptable by the respected Committee members, the PP should be covered under category 12 b (ii) and not under 12 a (iii). 3. It is stated that the PP has to construct its own drain or facilitating discharge of excess treated sewage water as well as rainwater to Budhi nala is right next to the boundary wall of our project site. The Budhi Nala is abutting the Project site. Hence, no extra land is required for construction of drain for discharge of excess treated sewerage water as we already have uninfored access to the Budhi Nala. The drain for discharge of excess treated sewerage water is constructed within the project site and travels towards and has access to the Budhi Nala through the boundary as Annexure "E"; a plan showing the proposed drain. Budhi nata for the proposed drain.
the Budhi Nala is visible right next to the boundary

xxix) The SEAC observed the following:

Since, this is a violation case as reported by the PP in compliance report. Presently, the Hon'ble Supreme Court has stayed the operation of said OM of SOP dtd. 7th July, 2021 and OM dtd. 28th January, 2022. Hence, the proposal may be returned to SEIAA, Odisha for further action.

ITEM NO. 08

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. COGENT STEEL AND PIPES PRIVATE LIMITED FOR REGULARIZATION OF EXISTING ROLLING MILL FOR THE PRODUCTION OF REROLLED STEEL PRODUCTS (M.S. PIPE) — 90,000 MTPA OVER AN AREA 2.4 ACRES (0.97 HECT.) AT KHATA NO. 13, PLOT NO. 764/P, 765, 803/P, 802/1110, 764/1112, 803, 804/1111 & KHATA NO. 73/80, PLOT NO.804/1178, VILLAGE- LODOSARA, P.S.-BIRAMITRAPUR, TEHSIL- KUARMUNDA DISTRICT- SUNDARGARH OF SRI PRATIK GUPTA — TOR

- 1. The proposal was considered by the committee to determine the "Terms of Reference (ToR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of EIA Notification, 2006 and amendment thereafter.
- 2. This proposal is for Terms of Reference for environmental clearance of M/s. Cogent Steel And Pipes Private Limited for Regularization of existing rolling mill for the production of Rerolled steel products (M.S. Pipe)- 90,000 MTPA over an area 2.4 Acres (0.97 Hect.) at Khata No. 13, Plot No. 764/P, 765, 803/P, 802/1110, 764/1112, 803, 804/1111 & Khata No. 73/80, Plot No.804/1178, Village- Lodosara, P.s.-Biramitrapur, Tehsil- Kuarmunda District-Sundargarh, Odisha of Sri Pratik Gupta.
- 3. Category: This is a Category B project which falls under schedule 3(a), Metallurgical Industries (ferrous & nonferrous) as per the EIA Notification 2006 and amendments thereafter. Proposed project is Regularization of Re-Rolling Mill, in compliance to the MoEF&CC Notification dated 20th July 2022, all Cold Rolled Stainless Steel Manufacturing Industries require prior environment clearance as per EIA notification 2006.
- 4. Location and Connectivity: M/s Cogent Steel & Pipes Pvt. Ltd. is located at Khata No. 13, Plot No. 764/P, 765, 803/P, 802/1110, 764/1112, 803, 804/1111 & Khata No. 73/80, Plot No.804/1178, Village Lodosara, P.S. Biramitrapur, Tahasil Kuarmunda District Sundargarh, Odisha. The geo coordinates of the project are: Latitude 22°18'3.43" N and Longitude 84°45'10.33E. The nearest Railway Station is Kuarmunda Railway Station which is located at about 2.8 km in E direction and Rourkela Airport is at a distance of 65pprox..7.5 km in SE direction from the project site..
- The renewal of last consent was granted by State Pollution Control Board, Odisha vide No. 1503/ dated 18.04.2023 Consent Order No. 0008/SPCB/RKL (APC & WPC) which is valid up to 31.03.2028.

6. Raw material:

S. No.	Raw Material	Quantity (TPA)	Source	Mode of transport
1	Billets/Ingots	94,500	Open Market	Road

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- 7. Water Requirement: Water consumption for the units is primarily due to cooling requirements where water is re-circulated in a closed circuit. The one-time water demand is 25.0 KLD, while the daily fresh water requirement is 18.0 KLD, about 10 KLD makeup water for cooling purpose, 4 KLD for plantation and dust suppression and 4.0 KLD for domestic purposes
- 8. Waste generation: The following will be the waste generation from the proposed project and method of disposal.

S. No	Particulars	Waste generation (KLD)	Management
1.	Industrial	5	Waste water from the rolling mills is likely to contain scale and oil & grease. This water is collected in settling tank fitted with an oil & grease skimmer. The clarified water is being re-used in the plant. Oil & Grease is being collected in drums and sold to secondary market for recycling.
2	Domestic	3.2	Existing sewage is being disposed of into septic tank and soak pit.

9. Solid waste generation and method of disposal:

S. No	Particulars	Quantity	Management			
1.	Municipal Solid Waste (Kg/day)@0.2kg/person	7.2	It is being Send to Municipal corporation			
2.	Mill scale	2500	sold to nearby Billets manufacturing Unit			
3.	End Cutting	2000	sold to nearby Billets manufacturing Unit			
4.	Bottom Ash	3360	Will be used in land filling			

- Power Requirement: Total power requirement for plants is 3.3 MW. Source from State Electricity Board. A DG Set capacity of 320 KVA also provided standby.
- 11. Greenbelt development plan: Approx. 0.25Ha. of total land availability is reserved for greenbelt development plan. About 625 Nos. (0.25Ha. x 2500 plant/ha.) Plants will be maintained. Existing plants will be retained as it is. Plant species will be planted after consultation of local forest department. Greenbelt of 33% of the area will be developed in the plant premises as per CPCB guidelines. A three-tier plantation is proposed.
- 12. Manpower Requirement: The local areas will be benefited by way of generation of employment opportunities, increased demand for local products and services. There will be an overall improvement in the income level of the local people. The proposed project will generate direct employment 100 No's which will be employed officials, staff, skilled, semi skilled labour & 100 Nos. indirectly employed in contract works & transport.
- 13. Total Project cost: The existing project cost is 1753.21 Lacs. EMP Cost includes a capital cost of 50 lakhs and recurring cost of 15 lakhs.

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S. No	Particulars	Amount (In lakhs)			
		Capital	Recurring Cost/ Annum		
1.	Air Pollution /Noise pollution Control System	35	5.00		
2.	Green Belt Development	08	2.00		
3.	Environment Monitoring and Management	-	5.00		
4.	Water Pollution Control System	03	1.00		
5.	Occupational Health& Safety	04	2.00		
	Total	50	15.00		

- 14. Environment Consultant: The Environment consultant M/s AmplEnviron Private Limited, Hyderabad along with the proponent made a presentation on the proposal before the Committee.
- 15. The SEAC in its meeting held on dated 28.08.2023 recommended the following:
- A. The proponent may be asked to submit the following for further processing of EC application:
 - a) Details of fly/bottom ash generation and its management.
 - b) Submit documents of approval i.e., CTE, CTO, compliance to stipulated conditions.
 - c) Submit a fresh KML file.
 - d) Details of spent refractions in terms of generation and permission for its disposal/selling to authorized vendors as they are hazardous.
 - e) Explore the possibility to use fly ash in construction purposes.
- B. The proposed site shall be visited by Sub-Committee of SEAC to verify the followings
 - a) Environmental settings of the project site.
 - b) Extent of construction activity and operational status of all the units.
 - c) Road connectivity to the project site.
 - d) Drainage network at the site.
 - e) Greenbelt development in the existing plant.
 - f) Solid waste management practice of the existing plant.
 - g) Vacant land available.
 - h) Any other issues including local issues.
 - 16. The proponent has furnished the compliance and the SEAC verified the same as follows:

SI.	Information Sought by SEAC	Compliance furnished by the	Views of SEAC
No.		proponent	
i.	Details of fly/bottom ash generation	Fly Ash- Nil generated at site Bottom	-
	and its management.	Ash- 3360 TPA (Bottom Ash will be	
ŀ		used in land filling at project site.)	
ii.	Submit documents of approval i.e.,	Copy of CTE, CTO, Compliance to	CTE -

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SI. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	CTE, CTO, compliance to stipulated conditions.	stipulated condition are enclosed as Annexure 1.	30.03.2022 CTO – 18.04.2023 Compliance report is not complete.
iii.	Submit a fresh KML file.	Fresh KML attached	KML file not found
liv.	Details of spent refractions in terms of generation and permission for its disposal/selling to authorized vendors as they are hazardous.	Spent refractions is not generated at project Site. As per Hazardous waste Authorization received form SPCB, Odisha. We generate only Used/Spent oil (0.5 KL/Annum) and Waste/Residue containing Oil (0.1 T/annum) at project site. Copy of HWA is enclosed as Annexure 2.	Copy submitted
V.	Explore the possibility to use fly ash in construction purposes.	No Fly Ash generated at Project Site	-

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

<u>ITEM NO. 09</u>

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S KORP RESOURCES PRIVATE LIMITED FOR PROPOSED EXPANSION OF TANTRA IRON ORE MINE (ML AREA: 72.560 HA.) FOR ENHANCEMENT OF IRON ORE PRODUCTION FROM 0.12 MTPA TO 0.24 MTPA ALONG WITH ESTABLISHMENT OF 1.0 MTPA THROUGHPUT BENEFICIATION PLANT AT VILLAGE - TANTRA & TENSA, BLOCK- KOIRA, DISTRICT -SUNDARGARH, STATE-ODISHA. - EC.

- This proposal is for Environmental Clearance of M/s. Korp Resources Private Limited for Tantra Iron Ore Mine (ML Area: 72.560 ha) for enhancement of Iron Ore production from 0.12 MTPA to 0.24 MTPA along with establishment of 1.0 MTPA throughput Beneficiation Plant at village - Tantra & Tensa, Block- Koira, District -Sundargarh, State- Odisha.
- 2. Category: This project falls under Category "B" under Schedule 1(a): Mining of Minerals as per EIA Notification dated 14th Sept, 2006 and its amendments.
- 3. Chronological Events for the proposal as per the submission of PP
 - i) Mining Lease of Tantra Iron Ore Mine was granted in favor of M/s Korp Resources up to 21.11.2035 and EC granted on 04.06.2009 for the production of 0.12 MTPA Iron Ore.
 - ii) KORP submitted proposal for enhancement of Tantra Iron Ore Mining project from 0.12 million ton to 0.24 million ton (800 TPD or 240000 TPA) and installation of 1 MTPA beneficiation plant on 30.06.2010. TOR issued by MoEF to KORP. Vide letter no 11015/236/2010-IA.II(M) on 25.10.2010.
 - iii) TOR issued by MoEF to KORP. Vide letter no 11015/236/2010-IA.II(M) on 25.10.2010.
 - iv) Public hearing conducted by OSPCB on 12.10.2012.
 - v) During 17th EAC meeting, the matter of grant of EC was discussed on 25.02.214.

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- vi) Minutes of 17th EAC meeting was released in which MoEF gave following two supplementary conditions on 15.04.2014.
 - Certified compliance report of RO shall be submitted.
 - A detailed study of Traffic density and road shell be submitted.
 - Compliance on the same is submitted on 31.07.14
- vii) As per direction of Govt. NEERI took up the traffic survey work in Odisha and the study continued from 2014 to 2017. During this period no project located in Joda, Koida, Barbil region was appraised for EC from MoEF on 29.10.2014.
- viii) Ultimately KRPL had to file a case in HC Odisha seeking an order for EC. And notice was given on 17.10.17 by HC for clearing the project within 6 months.
- ix) As no action was taken by MoEF, KRPL made appeal to HC and HC Odisha made 2nd notice to MoEF on for clearing the project within 6 months on 18.04.2018.
- x) MoEF issued letter to KORP in response to court order and asked KORP to appear in 33rd meeting of EAC with further clarifications on 25.04.2018. Second list of documents and details requested by MoEF on 13.06.2018. EAC deferred the proposal requesting re-application by an accredited consultant on 22.06.2018. 3rd letter issued by MoEF requesting information and clarifications on 05.07.2018.
- xi) Now, the details have been collected and application was discussed with MoEF&CC. As the earlier application was made in offline mode (hard copy), it was suggested by NIC that a fresh application must be made at the state level referring the previous application for grant of EC.
- xii) TOR details: Terms of Reference (TOR) was issued by MoEF&CC to M/s. Korp Resources Private Limited for the proposed expansion vide letter no. 11015/236/2010 IA.II (M) dtd. 25.10.2010.
- xiii) Public hearing details: Public hearing was conducted by OSPCB for the proposed expansion of Tantra Iron Mine from 0.12 to 0.24 MTPA on 12.10.2012.

4. List of Statutory Clearances obtained earlier -

- a) Supplementary Lease Deed issued on dated 12.07.2016 and is extended upto 21.11.2035.
- b) Mining plan is approved by IBM vide letter no. BBS/SNG/IRON/2177/RMP/2022-23 dtd. 31.08.2022
- c) Forest Clearance (Stage II) obtained vide letter no. 8 108/2008 FC dtd.14.06.2010.
- d) Ground Water Abstraction Permitted for 35m³/day vide letter no. CGWA/NOC/MIN/ORIG/ 2023/18255 dtd.19.04.2023.
- e) Environmental Clearance vide letter no. J-11015/1008/2007-IA.II (M) dtd. 04.06.2009 for Production of 0.12 MTPA of Iron ore obtained from MoEF&CC.
- f) Consent to Establish vide letter no. 22542/Ind-II-NOC-5683 dtd. 04.12.2013 for production of 0.12MTPA of iron ore.

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- g) Consent to Operate vide letter no. 4965/IND-I-CON-5124 dtd. 28.03.2023 for production of 1,20,000 TPA iron ore.
- 5. Location and connectivity: Tantra Iron Ore Mine along with its beneficiation plant over an area 72.56 hectares in Sundargarh district of Odisha belongs to M/s Korp Resources Private Limited. It is bounded by the latitude 21°52'40" E to 21°52'48" E and longitude 85°10'14" N to 85°11'03" N. in topo-sheet no. 73G/1. The nearest town is Barbil Town - 90 km (NNE), nearest Highway is Panikoli-Rajamunda NH-215 1 km (N), nearest Railway Station is Barsuan - 17 km (SW), nearest Major Airport is Biju Patnaik International Airport, Bhubaneswar- 85.87 km (S). The ML exhibits undulating hilly topography varying from 620 m AMSL on the southern part to 840 m AMSL on the norther part of the ML area. Slope is very steep and the elevation difference is 220 m. Out of the total 72.560 ha, 69.041 ha is diverted forest land and balance 0.141 ha non-forest land. The topography of the study area (10 km around the ML boundary) exhibits plain as well as hilly topography. The general gradient of the area is towards north. Number of reserved forests falls within the study area i.e., Sarkanda RF, Kathamal RF, Karo RF, Torha RF and Mendhamaruni RF. The area falls within the Baltarini river Basin and watershed of the Karo nala which flows at a distance of 2 km on the eastern side of the ML area. There is no perennial streams/nalas flows across the ML area.
- 6. Baseline study conducted: Baseline study was conducted during October to December 2022.
- 7. Ambient Air Monitoring: The project is an expansion project, and the study area is scattered with rural area. The area has cluster of Iron mines. The monitored results show PM10 levels were in the range of 93.4 to 59.8 μg/m³, PM2.5 levels were in the range of 53.8 to 31.3μg/m³, SO2 levels were in the range of 19.8 to 4.4 μg/m³, NOx levels were in the range of 29.6 to 8.2 μg/m³ & CO remained below detection level range of 0.45 to 0.13 mg/m³ which are well within the prescribed limit of Central Pollution Control Board.
- 8. **Ground Water quality monitoring:** The physico-chemical characteristics of ground water samples were analyzed. The levels of total dissolve solids varied from 90.4 to 79.1 mg/l, total hardness from 144.2 to 95.4 mg/l.
- 9. Surface Water quality monitoring: The physico-chemical characteristics of surface water were analyzed. In fresh water, the pH values of are varies from 8.3 to 7.5, total dissolved solids are 9 294 to 76 mg/l, BOD ranges from 4 to respectively. The MF technique involves direct plating for detection and estimation of total coliform densities. The total coliform density in fresh water are varies from 17 to 7.8 MPN/100, which are within the limit as per IS-2296, for surface water quality.
- 10. Ambient Noise monitoring: The noise levels were measured at eight stations in core and buffer zone located in residential areas. The noise levels observed during day time varies from 6 62.1 to 40.2 dB(A) and at night time varies from 45.2 to 28.5 dB(A). All the noise values observed are well within the limits prescribed by National Ambient Air Quality Standards for Noise.

- 11. Soil monitoring: Top soil samples were collected from core & buffer zone, from four locations. From the above analysis report, it is found that the bulk density ranges between 4.72 to 1.38 g/cc. The soil texture is almost clayey. The soil is very much fertile for agriculture purpose.
- 12. Life of Mines is estimated as 13 years.
- 13. Water requirement: About 146 KLD water will be required for dust suppression, plantation, workshop & wheel wash, drinking & domestic activities, etc. Mine pit water will be used for dust suppression and plantation activities. Ground water from borewell will be used for drinking and domestic use.
- 14. Wastewater management: Waste water & sanitary sewage from domestic use in the mine site is being discharged to septic tank and soak pit and in no circumstances discharged to any water body. There will not be any garage with washing facility within the leasehold area and hence the chance of generation of effluent from workshop does not arise.

15. Mining Plan Details:

- a) Mining method: Mechanised opencast mining method with large HEMM will be carried out to increase the production from a level of 0.12 MTPA to 0.24 MTPA. Mine with the deployment of 100mm - 115mm dia. drills, 1.2m³ capacity excavator, 10T & 20T capacity tipper / dumpers etc.
- b) Extent of development: Existing Quarry will be developed leaving 7.5m wide safety zone / barrier all along the M.L boundary to obtain iron ore @240,000 t/annum. Year wise production and development plan & sections on 1:2000 scale have been prepared and coloured distinctly.
- c) Bench parameters: Height and width of the benches will be kept at 6m each. The individual bench faces will be kept nearly vertical (80°) whereas the overall quarry slope angle (the angle between the line joining the toe of bottom bench and the crest of the top bench with the horizontal) is proposed to be maintained at around 45° with the horizontal.
- d) Blast hole drilling: DTH drills of 100 mm-115 mm dia. with compatible size compressor will be used for blast hole drilling for loosening of hard and compact strata.
- e) Excavation: Excavators of 1.2 m ^ 2 m bucket capacity will be deployed for excavation & loading of iron ore and OB/ waste into the dumpers.

16. Year wise Production Details:

SI. No.	Year	Bench	Over Burden Volume (Length x width x height) (m3)	Over Burden Quantity (t)	ROM Quantity (t)	Mineral Rejects (t)	Production Main(t)	OB to Ore Ratio (ton/m3)
1	1 st (2023-24)	760	51300	102600	240000	118500(+45- 50%Fe)	121500	1:0.21
2	2 nd	760	29900	59800	240000	126000(+45-	114000	1:0.12

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 -	(2024 -25)					50%Fe)		
3 ——	(2025 -26)	760	117300	234600	240000	61500 (+45-	178500	1:0.49
	4 ⁱⁿ (2026 -27)	760	59500	119000	240000	50%Fe) 178800	61200	1:0.25
5	5 th (2027-28)	760	112800	225600	240000	(+45-50%Fe) 194100	45900	1:0.47
	Total		370800	741600	1200000	(+45-50%Fe) 678900 (+45-50%Fe)	521100	1:0.31

17. Waste Generation and Management: Waste dump already reclaimed technically and biologically. This dump area is already proven barren by drilling. This dump has waste materials which are of grade below 45% Fe of laterite, shale, BHJ, BHQ, etc. This dump is already reclaimed by coir matting and subsequently plantation has been done surrounded by retaining wall of 1.5m height & 1m width and garland drain. Any rain cut which may develop in dump slope is proposed to be checked by no. of small check dams. Garland drains at the toe of the dump is connected to settling tank. Retreating method is adopted for backfilling. During the futuristic mining activity, tentatively out of the total waste 40% of waste material shall be utilized for road maintenance purpose and balance 60% shall be used for backfilling till the conceptual period.

Waste Generation (Existing Dump Details)

SI. No.	Year	Dump ID	Type of Dump	Proposed Area (Ha)	Height (m)	Total Dump Quantity (m3)	Existing Dump Location
	As on date	Dump -	OB	0.575	28	40250	2420728N- 2420800N/ 311452E- 311631E
2	As on date	Dump-2	OB	0.250	14	8750	2420815N- 2420848N/ 311439E- 311560E
Total				0.825		49,000	

Waste Generation (Proposed Dump)

SI. No.	Year	Dump ID	Type of Dump	Proposed Area(Ha)	Height (m)	Total Dump Quantity (m3)	New Dump Location
1 	(2023- 24)	Dump-	OB	0.171	30	51,300	2420729N- 2420806N/ 311418E-
2	2nd (2024- 25)	Dump- 1	ОВ	0.100	30	29,900	311553E 2420806N- 2420820N/ 311411E- 311555E

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SI. No.	Year	Dump ID	Type of Dump	Proposed Area(Ha)	Height (m)	Total Dump Quantity (m3)	New Dump Location
3	3rd (2025- 26)	Dump- 1	ОВ	0.391	30	117,300	2420820N- 2420835N/ 311410E- 311557E
4	4th (2026- 27)	Dump- 1	ОВ	0.198	30	59,500	2420835N- 2420847N/ 311415E- 311555E
5	5 th (2027- 28)	Dump- 1	ОВ	0.376	30	112,800	2420847N- 2420878N/ 311420E- 311550E
	Total			1,236		370,800	40

18. The land utilization plan details: The mine lease area is spread over 72.56 ha. The land utilization plan is given below.

Sl. No.	Particular	Area at present	Area at end of plan period
1	Area under mining	9.009	12.46
2	Topsoil Stacking	0	0
3	OB/Waste Dumping	0.825	2,061
4	Mineral Storage	4.955	4.955
5	Infrastructure	1	1
6	Roads	4.148	4.148
7	Railways	0	0
8	Tailing Pond	0	Ō
9	ETP	0	0
10	Mineral Separation Plant	3.55	3.55
11	Township area	0	0
12	Parking	1.12	1.12
13	Sub-grade stack	3.158	3.158
	Total	27.765	32.442
	Undisturbed	44.795	40.108
	Grand Total	72.56	72.56

- 19. Power Requirement & solar power details: Electric power line passes through the M.L. area. Mines office, residential complex etc. are electrified. Total power requirement is 135 MW.
- 20. **Greenbelt Development:** Plantation will be undertaken over the life of mine in a phase wise manner. The plantation will start from the first year of mining and will be maintained in remaining years. Total proposed plantation area will be 14.123 ha, and 29, 068 tree will be planted over 5 year of plan period.

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- 21. Total Employment: A total manpower requirement is 62 persons for opencast mining. Mostly locals will be employed for this project.
- 22. Project Cost: The expected cost of the project is Rs. 165.45 Crores.
- 23. Environment Consultant: The Environment consultant M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar along with the proponent made a presentation on the proposal before the Committee.
- 24. The SEAC in its meeting held on 03-02-2024 decided to take decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

SI.	Information Sought by SEAC	Compliance furnished by the	View - CODA O
No.	J	proponent	Views of SEAC
1.	of the proposed project in chronological order with supporting documents.	Details are attached as Annexure 1.	Chronology of the project submitted
2.	Copy of Environmental Clearance, CTE, CTO for existing mining activities and present operational status.	for opencast mining of 0.12 MTPA iron ore through fully mechanized method. EC letter, CTE and CTO are attached as Annexure 2.	Copies submitted
3.	Photographs of concrete wall for settling tank.	Details are attached as Annexure 3.	-
4.	A note on air borne dust concentration during blasting and its control measures to be undertaken.	Air Quality Modeling for Blasting has been done and concentration has been calculated. Details of concentration and mitigation measures for the same are attached as Annexure 4.	-
5.	Total material balance with size/grade differentiation till the tailings stage.	Details are attached as Annexure 5.	-
6.	Mineralogical content of the tailings.	Fe content of tailings is expected to be around 41%. As per Indian Bureau of Mines F. No. C-248/3/CMG/2017 dated 24.03.2017, maximum Fe content in tailings will be <45%.	-
7.	The settling pond and tailings pond overflow should be re-utilized in the process.	The settling pond and tailings pond Over flow will be re-utilized in the process. Undertaking is attached as Annexure 6.	-
[Water balance for the proposed 1 MTPA beneficiation plant.	Details are attached as Annexure 7.	-
9.	The unit shall not operate the plant during monsoon period.	•	As per Undertaking submitted, the unit shall

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SI. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
			operate for 200 days is mentioned. The plant will not operate during monsoon period has not mentioned in particular.
10.	A detailed note as to why a fresh public hearing shall not be conducted as public hearing which has been conducted for the proposal is long back i.e. on 12.10.2012.		-
11.	Copy of application submitted for Forest Clearance of safety zone and current status.		Application copy which has been submitted is Delisted By System (at: 20/03/2024) as per current status in Parivesh site.
12.	Material Balance 1.0 MPTA of the beneficiation plant with tailing management plan.	Details are attached as Annexure 5.	-
13.	Existing and proposed conservation measures to augment the water resources.	Details are attached as Annexure 10.	•

25. The Committee observed the following:

i) This is an old case and EIA/EMP report has been prepared long back. Also public hearing conducted long back on 12.10.2012. Fresh baseline study was conducted during October to December 2022 and accordingly EIA report prepared as per standard ToR and submitted.

After detailed discussion, the SEAC decided to take decision on the proposal after receipt of the following from the proponent.

- Detailed justification as to why a fresh public hearing shall not be conducted as the public hearing conducted for the proposal is long back on 12.10.2012.
- ii) Copy of application submitted for Forest Clearance of safety zone and current status.

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ITEM NO. 10

PROPOSAL FOR AMENDMENT ENVIRONMENTAL CLEARANCE OF M/S. SHIVA CEMENT LTD FOR LIMESTONE MINE (KHATKURBAHAL NORTH BLOCK, AREA: 156.43 HA) WITH LIMESTONE PRODUCTION CAPACITY OF 1.6 MILLION TPA AT VILLAGE KHATKURBHAL & PHALSAKANI, TAHSIL: KUTRA, DIST: SUNDARGARH OF SRI MANOJ KUMAR RUSTAGI – MOD- EC

- This proposal is for amendment Environmental Clearance of M/s. Shiva Cement Ltd for Limestone Mine (Khatkurbahal North Block, Area: 156.43 ha) with Limestone production capacity of 1.6 Million TPA at Village Khatkurbhal & Phalsakani, Tahsil: Kutra, Dist: Sundargarh of Sri Manoj Kumar Rustagi.
- 2. Category: The project falls under Category" B" Project or Activity 1(a) "Mining of Minerals" as per MoEF&CC, Govt. of India Notification as the Mining Lease Area is less than 250 ha.
- 3. Location: The mine is situated near Villages- Khatkurbahal &P halsakhani, Tehsil- Kutra, District Sundargarh, Odisha. The latitude is 22° 16'45.31025" N to 22° 17'10.12835" N and 84° 27'36.13496" E to 84° 29'18.22107" E. The mines fall in part of Survey of India topo sheet No. F45G7, F45G8,F45G11& F45G12.
- 4. M/s. Shiva Cement Limited has an existing Cement Plant with clinker production capacity 3.0 million TPA & Cement 2.0 million TPA at Village Telighana. Tehsil- Kutra, District Sundargarh, Odisha.
- Environment clearance has been obtained from MoEFCC vide File No J-11011/84/2008-IA.II
 (I) dated 23.03.2022. To meet the limestone requirement of cement plant, company has two mines:
 - ➤ Khatkurbahal Limestone & Dolomite Mine (ML Area- 72.439 ha) with Production Capacity 1.5 million TPA Near village Khatkurbahal &Kulenbahal, Tehsil Kutra, District Sundargarh (Odisha). Environment Clearance for the same has been obtained from SEIAA, Odisha vide letter No 37895/62-MINB1/11-2021 dated 11.03.2022.
 - ➤ Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) with limestone production capacity of 1.6 million TPA at Villages Khatkurbahal&Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha. Environment clearance has been obtained from MoEFCC vide File No J-11015/47/2020-IA.II (I) dated 17.03.2022.
- 6. Amendment justification: Project Proposal is for amendment in Specific Condition No. ii of the existing Environment Clearance Letter No J-11015/47/2020-IA-II(M) dated 17.03.2022 in favor of Shiva Cement Limited for Khatkurbahal (North) Block Limestone Mine (M.L. Area-156.43 ha) with limestone production capacity of 1.6 million TPA at Villages Khatkurbahal&Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha w.r.t permission for road transportation from mines to captive cement plant for 5 years. Amendment required is as below:

SI.	Reference	Description	Amendment requested	Reason for amendment
No.	of	as per	-	
	Approved	Approved		

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	EC	EC		
1.	Specific Condition No ii		of 5 years from the start	Majority of the land required for installation of OLBC is tribal land and thus has to be acquired by the state govt as per LARR Act, 2013. The land acquisition has already been undertaken by the state Govt. and the same is a time-consuming process. Complete land acquisition and its handover to SCL along with installation and commissioning of conveyor is likely to take approx. 5 years

7. Status of Land Acquisition and installation of conveyor belt and timeline for completion is given below:

S. No.	Activity	Status/ tentative date of completion
1	Project approval by IPICOL	Completed
2	Recommendation to IDCO by IPICOL for land	Completed
3	Scrutiny by IDCO for land records	Completed
4	Recommendation by IDCO to 5 irrigation depts & geology dept. For noc& to obtain NOC	Completed
5	Administrative approval from industries dept to start the land acquisition process	Completed
6	Recommendation by IDCO to district administration to start the la process	Completed
7	District administration to start the land acquisition process as per the land acquisition act	Started
8	Posting of data in LARRMS	Completed
9	Scrutiny of the land records by District land acquisition dept and process for 4(i)notification	31-12-2023
10	Preparation of Draft SIA study report	31-03-2024
11	Public hearing based on draft SIA study report	30-06-2024
12	Finalization of SIA study report	30-07-2024

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Twangak Environmental Scientist, SEAC

13	Constitution of expert GP and evaluation of SIA report by expert GP(u/s-7(2))	30-08-2024
14	Submission of expert GP Report to collector	30-09-2024
15	Publication of Declaration U/s- 8(2) by R&DM dept.	20-10-2024
16	Preparation of documents and administrative cost for 11(1) notifications	30-10-2024
17	Publication of preliminary notification by collector U/s-11(1)	30-11-2024
18	Survey of structures, trees etc over the land to be acquired (U/s- 12)	15-02-2025
19	Objection hearing u/s - 15 regarding SIA study/public purpose/suitability of the land	20-04-2025
20	Preparation of R&R plan (if any) by the administrator U/S-31. This will in parallel with U/s-12	20-07-2025
21	Estimation and deposit of LA cost, preparation of relevant documents for publication of declaration u/s-19	20-08-2025
22	Declaration by collector U/s-19(1)	20-10-2025
23	Conduction of yadast report for preparation of award for the land losers	20-12-2025
24	Objection hearing regarding legal heir or person interested (U/s-23)	31-01-2026
25	Passing of award U/s-30	05-03-2026
26	Disbursement of award (min 80% of compensation)	05-05-2026
27	Handing order possession after disbursement of 80% of compensation	05-07-2026
28	Consent to Establish	05-10-2026
29	Erection & commissioning of OLBC	30-04-2028
30	Consent to Operate	31-07-2028

8. Environment Consultant: The environment consultant M/s J.M. Enviro Net Pvt. Ltd., Gurugram along with the proponent made a presentation on the proposal before the Committee.

9. The SEAC in its meeting held on dated 21-11-2023 decided to take decision on the proposal after receipt of the following information from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

SI. No.	Information Sought by SEAC	Compliance furnished by the Views of SEAC proponent
1.	Compliance report to the Previous	Certified compliance report in Copy submitted

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		Marin Andrews Construction of the County Construction	SARALLERS ENG
SI. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	EC conditions regarding the road.	respect of the previous EC conditions issued by IRO, MoEF & CC Bhubaneswar is enclosed as Annexure - I. The site inspection was carried out on 01-03-2024 by Shri Sandeep Nandi, Scientist 'B'.	
2.	Traffic study report vetted by reputed institute and details of traffic load due to the proposed transport activity of the project.	Traffic Study Report along with the details of traffic load due to the	Copy submitted
		that, the traffic study and air modeling study satisfy the existing road network to accommodate the additional traffic load as per IRC guidelines. Hence it is recommended for establishment of Limestone mine and extraction".	
3.	Height of the conveyor belt may be considered after consultation with forest department.	Shiva Cement Limited has consulted with the DFO, Sundargarh Division regarding height of the proposed conveyor and accordingly considered minimum height of 6 Meter above ground level. Copy of the letter no 1041/4F(Misc) Dt.08.02.2024 obtained from the office of the Divisional Forest Officer, Sundargarh Forest Division is enclosed as Annexure-III.	
4.	NOC/Permission from local authority regarding usage of approach road.	NOC pertaining to usage of approach road obtained from the office of the Superintending Engineer, Sundargarh (R&B) Division bearing letter no.1935	Copy submitted

Proceedings of the SEAC meeting held on 29.04.2024 (Old proposals – compliance received)

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SĪ.	Information Sought by SEAC	Compliance furnished by the	Views of SEAC
No.	<u> </u>	proponent	
		Dated 20/03/2023 is enclosed as	
- <u>-</u>		Annexure-IV.	
5.	Present status of land acquisition		-
	and reason for delaying land	acquisition and subsequent	
	acquisition.	installation of OLBC:	
		Majority of the land required for	
		installation of OLBC is tribal land and	
		thus has to be acquired by the state	
		Govt. as per LARR Act, 2013.	
		The land acquisition process was	
		started since 2021 through the state	
		Govt. Delay in land acquisition is	
		attributable to the following factors:	
		Procedural delay in getting	
		NOCs required by IDCO from 5	
		deptts viz, Irrigation Deptt,	
		Mega Irrigation deptt, Minor	
		Irrigation deptt, Lift Irrigation	
		Deptt and Deptt of Geology.	
		 Procedural delay in 	
,		administrative approval from	
		state Govt. for land acquisition	
		Scrutiny of land records by	
		IDCO and later by District Land	
l		Acquisition deptt.	
		Complete land acquisition and its	
		handover to SCL along with	
ł		installation and commissioning of	
		conveyor is likely to take 80 approx	
		4 years from now.	
1		Status of land acquisition and	
		tentative timeline for various	
		activities involved in the project is	
		enclosed as Annexure-V.	

Considering the information furnished and the presentation made by the consultant, M/s J.M. Enviro Net Pvt. Ltd., Gurugram along with the project proponent, the SEAC recommended following:

- (i) Specific Condition No. ii of the existing Environment Clearance Letter No J-11015/47/2020-IA-II(M) dated 17.03.2022 in favor of Shiva Cement Limited for Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) may be replaced as follows:
 - a) The transportation of mineral from mine to captive cement plant may be carried out through existing road for a period of 5 years from the start of mining operations and later through Overland belt Conveyor (OLBC).
 - b) No more road transportation is allowed after the mentioned date without permission of the SEIAA, Odisha.

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- c) From 5th year onwards, the ore should be transported only through Overland belt Conveyor (OLBC) as per the guidelines of CSIR-NEERI's recommendation.
- d) The PP shall inform SEIAA, Odisha for any deviation in the proposed mode of transport of minerals in case the timeline is not complied with.

ITEM NO. 11

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S MAYFAIR HOTELS & RESORTS LIMITED FOR PROPOSED CONSTRUCTION OF (B+G+3) BLOCK-A & SINGLE STORIED BLOCK-B HOTEL BUILDING OF MAYFAIR BAY RESORT, PARADEEP, A UNIT OF M/S MAYFAIR HOTELS & RESORT LIMITED LOCATED AT PLOT NO.- 47(P), 56(P), KHATA NO.-01, MOUZA - NUASANDHAKUDA, DIST-JAGATSINGHPUR OF SRI BIJU JOHN - EC

- This proposal is for Environmental Clearance of M/s Mayfair Hotels & Resorts Limited for Proposed Construction of (B+G+3) Block-A & Single Storied Block-B Hotel Building of Mayfair Bay Resort, Paradeep, a unit of M/s MAYFAIR Hotels & Resort Limited located at Plot No.- 47(P), 56(P), Khata No.-01, Mouza - Nuasandhakuda, Dist - Jagatsinghpur of Sri Biju John.
- 2. Category: As per the EIA notification 2006 and its subsequent amendments, proposed project falls in category B under schedule of Item 8(a): Building & Construction Projects.
- 3. M/s Mayfair Hotels & Resorts Limited has proposed for development of a Three Star Hotel with 134 Rooms with all modern facilities.
- 4. The existing property of Panthanivas, Paradeep needs to be demolished so that the infrastructure of the proposed hotel can be established.
- 5. Location and Connectivity The proposed Mayfair Bay Resorts is located at Plot No.-47(P), 56(P), Khata No.- 01, Mouza- Nuashandhakuda, Tahasil Kujang, Dist-Jagatsinghpur, Odisha. The Geographical co-ordinate of the project site is: Latitude 20° 15' 36.097" N & Longitude 86° 39' 54.851" E. The location of the project area can be seen in Survey of India Open Series No. F45U11 & F45U12. The project site is well connected with Paradeep-Chandikhol Road i.e. National Highway-53 which is 0.8 km from the proposed project site. The nearest railway station is Paradeep Railway Station at a distance of 5.8 km from project site. The nearest Airport is Biju Patnaik International Airport Bhubaneswar, which is approximately 90.0 km from the site.
- 6. The project site is in CRZ-II area and the site is coming under Paradeep Development Authority (PDA)
- 7. The total plot area is 12140.0 sq.mt./3.0 Ac./1.21 Ha. with total built-up area 28414.75 sq.mt.
- 8. The Building Area Details of the Project is:

Particular	Proposed
Plot Area	12140 sqm (3 Acres)

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Ground Coverage	7064.78 sqm (58 %)
Total Built up Area	28414.75 sqm
Total FAR Area	19009.61 sqm
Maximum Height	14.99 meter
Parking Area	5956.08 sqm
Green Belt Area	2428.0 sqm (20%)
Power/Electricity Requirement & Sources	500.0 KVA
- todalioment & Sources	Source: PPT Power Supply
DG sets	500 KVA
Fresh Water requirement & Sources	110.0 KLD
a oddices	Source: PHD Supply
Sewage Treatment & Disposal	STP Capacity
Disposal	100 KLD
Total No. of Room	138.0 Nos.
Solid Waste Generation	155.2 kg/day

9. Water Requirement and waste water management: Fresh make up of 112.0 m³/day will be required for the project which will be sourced from PHED Supply Water. Total waste water generated from the hotel and Restuarant is about 109.6 KLD which will be treated in STP of Capacity 120 KLD. The PP has proposed zero discharge in Non Monsoon period and 60KLD of treated waste water in Monsoon period will be discharged to nearby drain.

SI. No.	Description	Total Population	Per Capita Consumption		Water Requirement (KLD)		
		l ,	(itr/day)	itton	Domestic	Flushing	Total
1.	Hotel (138 nos. Room)	276 nos.	Fresh (260)	Flushing (60)	71.8	16.5	88.3
2.	Staff	175 Nos.	Fresh (25)	Flushing (20)	4.4	3.5	7.9
3.	Kitchen & Laundry	-			35.7	-	35.7
Tot	al				111.9≈ 112	20.0	131.9≈ 132.0

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Domestic Water Requirement	112.0 KLD
Fresh (80% of domestic water required)	89.6 KLD
Flushing Water Requirement	20.0 KLD
Flushing (100% of flushing water required)	20.0 KLD
Waste Water Generated (80% fresh + 100% flushing)	89.6+20.0 = 109.6 KLD
STP Capacity	120.0 KLD
STP Loss (5%)	5.5 KLD
Total Recycled Water	104.1 KLD

- 10. Power Requirement: Total Power requirement of the proposed building is 500.0 KVA, Source is PPT Power Supply, 1x500 KVA DG Sets is provided. Total 25 KVA Solar Power Generation which is 5.0% of total power required in project.
- 11. Rainwater Harvesting: Total 307.0 cum Rainwater is harvested through 08 nos. of recharge pits.
- 12. Parking Requirement: Total parking area provided is 5956.08 Sq.mt. and total 196 nos. of ECS and location of parking area is Basement & Open area.

Parking Area Provided				
Open Parking			1108.61 sqm	
Basement Parking			4847.47 sqm	
Total Parking			5956.08 sqm	
Equivalent Car Space Provided				
	Area(sqm)	Area/ECS		
Open Parking	1108.61	25	44 ECS	
Basement Parking	4847.47	32	152 ECS	
Total Parking Provi	196 ECS			

- Firefighting Installations: Fire Fighting will be provided as per NBC Norms.
- 14. Green Belt Development: Greenbelt is developed over an area of 2428.0 sqm which is 20.0% of the total plot area. Total 154 nos. of plants to be planted and 3 tier plantations.
- 15. Solid Waste Management: From the hotel complex solid waste in form of food waste from kitchen and miscellaneous waste will be generated @0.40 kg/person/day, which will be about 110.4 kg/day. The generated solid waste from the hotel complex will be segregated as biodegradable and non-biodegradable. This will be collected in separate-colored bins. Proper waste management practices will be adopted during the collection, storage and disposal of the generated solid waste and construction and demolition waste.

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Solid waste Generation

Si. No.	Category	Counts (heads)	Waste generated (kg/day)
1.	Hotel Population	276 @ 0.40 kg/day	110.4
2.	Floating Population	175 @ 0.15 kg/day	26.3
3.	STP Sludge		18.5
TOTAL SOLID WASTE GENERATED			155.2 kg/day

- 16. Project cost: The estimated project cost is 78.0 Crores and cost for EMP is 1.45 Crores.
- 17. Environment Consultant: The Environment consultant M/s Centre for Envotech & Management Consultancy Pvt. Ltd, Bhubaneswar along with the proponent made a presentation on the proposal before the Committee.
- 18. The SEAC in its meeting held on dated 28-02-2024 recommended the following:

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

- i) Land documents with kisam of land and ROR.
- ii) Permission from PHD section of Paradeep Port for water and electricity.
- iii) Permission for drainage discharge/ discharge of excess water from concerned authority along with drainage layout.
- iv) Difference between bottom reduced level and rainwater harvesting pits, basement reduced level and ground water reduced level.
- v) Details of Solid Waste Management and disposal practice.
- vi) Copy of recommendation of CRZ Authority.
- vii) The PP shall augment the solar energy up to 25% and include provision for roof top solar arrangements.
- viii) Traffic study report vetted by institute of repute.
- ix) Plan for disaster management in case of cyclone as it is a cyclone prone area.
- x) Measures should be taken for lightening and window panes should be adequately designed for cyclone.

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

- Status of demolition of existing hotel building of Pantha-nivas.
- ii) Adequacy of the land available for setting of the proposed project.
- iii) Construction activities if any carried out for the proposed project.
- iv) Drainage network at the site.
- v) Discharge point for discharge of treated waste water and distance of the discharge point from the project site.

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- vi) Road connectivity to the project site.
- i) Any other issues including local issues.
- 19. The proposed site was visited by the sub-committee of SEAC on **03.04.2024**. Following are the observations of the sub-committee:
 - a) The site is connected to a wide road of about 200ft with division.
 - b) There is no construction activity. Initially it was Panthanivas, but the old construction was demolished completely.
 - c) There is a drain available at the side of the road at a distance of about 500 mt from the site. PP needs to take necessary permission from the authority to connect the excess treated water and storm water to the drain with approval of drain network from the authority.
 - d) Also, RWH needs to be adequate with green belt complying to norm.
 - e) Parking has to be sufficient complying to norm.
 - f) All other points asked during presentation to be complied.
- 20. The proponent has furnished the compliance and the SEAC verified the same as follows:

SI.	Information Sought by SEAC	Compliance furnished by the	Views of SEAC
No.		proponent	
1.	Land documents with kisam of land	Lease Agreement copy is attached in	-
	and ROR.	Annexure-1.	
2.	Permission from PHD section of Paradeep Port for water and electricity.	Water permission has been obtained from Paradeep Port Authority vide letter no. CE/BC/MISC-01/2024/106, dated 16.04.2024. Water permission letter is attached in Annexure-2. Electricity permission has been obtained from Paradeep Port Authority vide letter no. EM/PED/TECH-06/2024/943, dated 22.03.2024. Electricity permission letter is attached in Annexure-3.	permitted water supply for taking up construction activities on the condition of availability of the sweet water from the existing pipeline and after due formalities with the Paradeep Port
-	Demoissies for desirons discharge	Dustance page hoop	Authority.
3.	Permission for drainage discharge/ discharge of excess water from concerned authority along with drainage layout.		•
4.	Difference between bottom reduced level and rainwater harvesting pits, basement reduced level and ground water reduced level.	As per the existing study and data the Reduced Level of Ground Water is 35.00 mtr from BGL and Bottom Reduced Level of Rainwater	-

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SI.	Information County by CEAC		-
	Information Sought by SEAC	Compliance furnished by the	Views of SEAC
No.	<u> </u>	proponent	
		Harvesting pit will be 40.00 mtr from	
		BGL.	
5.	Details of Solid Waste Management	Detail Solid Waste Management and	-
	and disposal practice.	disposal process is attached in	
 _		Annexure-5.	
6.	Copy of recommendation of CRZ	CRZ permission has been obtained	-
	Authority.	from Odisha Coastal Zone	
		Management Authority (OCZMA) vide	
		letter no. OCZMA-11/2023-	
		45/OCZMA, dated 06.02.2024. Copy	
		of CRZ Clearance is attached in	
<u> </u>		Annexure-6.	
7.	The PP shall augment the solar	Total power generation from Solar	-
	energy up to 25% and include	system is 22.2 KW through 10 nos. of	
	provision for roof top solar	PV Panels & 20 nos. of Solar Street	
	arrangements.	Lighting. Total power demand of the	
		proposed hotel building is 400.0 KW	
		(500 KVA). So total solar power	
		generation from the proposed hotel	
ļ i		building is 5.5% of total power	
	i	demand. Details solar calculation is	
		attached in Annexure-7.	
8.	Traffic study report vetted by institute	Traffic Study Report has been vetted	-
ļ	of repute.	by Indian Institute of Technology (IIT)	
		Bhubaneswar & the vetted traffic study	
		report is attached in Annexure-8.	
9.	Plan for disaster management in case	Disaster Management Plan (DMP) of	-
	of cyclone as it is a cyclone prone	the proposed hotel building project is	
	area.	attached in Annenxure-9.	
10.	Measures should be taken for	Precaution measures have been taken	_
	lightening and window panes should	for lighting and the window panes is	}
	be adequately designed for cyclone.	designed as per cyclone.	

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

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

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- iv) The proponent shall obtain permission from concerned Fire Safety Authority.
- v) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- vi) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- vii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
- viii) The PP will not commence construction unless the drain lay out is finalized and permission given for the same by the authority to discharge excess treated water & storm water.
- ix) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

MEMBER SECRETARY, SEAC

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CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE OF M/S MISRILALL MINES PRIVATE LIMITED FOR ESTABLISHMENT OF 30 TPH CAPACITY CHROME ORE BENEFICIATION PLANT HAVING THROUGHPUT OF 198000 TPA AND ANNUAL CHROME CONCENTRATE PRODUCTION OF 97000TPA BASED ON AVERAGE GRADE 30% CR₂O₃, AT: PANKAPAL, VILLAGE: NIMAPALI, TAHASIL: SUKINDA, DISTRICT: JAJPUR OF SRI UJJWAL KUMAR SINHA – EC

I. Statutory compliance:

- (i) 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.
- (ii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- (iii) 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, (incase of the presence of schedule-I species in the study area)
- (iv) 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.
- (v) The project proponent shall obtain the necessary permission from the Central Ground Water Authority and other concerned authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- (vi) The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

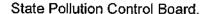
II. Air quality monitoring and preservation

- (i) The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.
- (ii) The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.

- (iii) Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- (iv) The project proponent use leak proof trucks/dumpers carrying ore and other raw materials and cover them with tarpaulin.
- (v) Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- (vi) Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.
- (vii) The project proponent shall carry out conditioning of the ore with water to mitigate fugitive dust emission, without affecting flow of ore in the ore processing and handling areas.
- (viii) Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of air pollutants such as haul road, loading and unloading point and transfer points. It shall be ensured that the Ambient Air Quality parameters conform to the National ambient air quality standards.
- (ix) The transportation of mineral shall be carried out through the covered trucks. Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in beneficiation operations and in transportation of ore to the beneficiation plant. The vehicles carrying the mineral shall not be overloaded.
- (x) Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
- (xi) Occupational health surveillance program of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed. Health records of the workers shall be maintained.
- (xii) Regular Ambient Air Quality Monitoring shall be carried out. The monitoring stations will be set up in consultation with the SPCB. At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of PM_{2.5}, PM₁₀, SO₂ and NOx are anticipated in consultation with the State Pollution control Board. It will be ensured that at least one monitoring station is set up in up-wind & in down-wind direction along with those in other directions. The instruments used for ambient air quality monitoring shall be calibrated regularly.
- (xiii) Data on ambient air quality (PM_{2.5}, PM₁₀, SO₂, NOx) shall be regularly submitted to the Ministry including its Regional office located at Bhubaneswar and the State Pollution Control Board/Central Pollution Control Board once in six months.

III. Water quality monitoring and preservation

- (i) The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- (ii) Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- (iii) Garland drains and collection pits shall be provided for each stock pile to arrest the runoff in the event of heavy rains and to check the water pollution due to surface run off.
- (iv) The project proponent shall practice rainwater harvesting to maximum possible extent.
- (v) The effluent from the ore beneficiation plant shall be treated in the tailing thickener and the tailings slurry shall be transported through a closed pipeline to the tailing pond.
- (vi) The tailing pond shall be lined with appropriate impervious lining on all sides as well as the bottom to prevent any leachate going from the tailing pond into groundwater.
- (vii) The garland drain shall be constructed around the tailing pond before the starting operation on the project.
- (viii) The decanted water from the tailing pond shall be re-circulated and there should be zero discharge from the tailing pond.
- (ix) Appropriate technology shall be used for maximum recovery of ore in order to reduce slurry discharge and to increase the life of the tailing pond.
- (x) Garland drains with appropriate size, gradient and length shall be constructed to arrest silt and sediment flows from ore dumps and directly into the water bodies. The water so collected shall be utilized for watering the roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
- (xi) Effluents containing Cr+6 shall be treated to meet the prescribed standards before reuse. Effluent Treatment Plant should be provided for treatment of wastewater generated from the beneficiation plant.
- (xii) Run off from the mineral and reject dumps and other surface run off should be analyzed for Cr+6 and in case its concentration is found higher than the permissible limit the water should be treated before reuse.
- (xiii) Adhere to "Zero Liquid Discharge".
- (xiv) Regular monitoring of water quality for surface water sources as well as ground water sources shall be carried out. The groundwater shall be monitored downstream of beneficiation plant as well as tailing pond upto groundwater table and record of monitoring data should be maintained and submitted on six monthly basis to the Ministry of Environment and Forests, its Regional Office, Bhubaneswar, the Central Ground Water Authority, the Regional Director Central Ground Water Board and the



- (xv) Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.
- (xvi) Appropriate mitigative measures shall be taken to prevent pollution of the nearby surface water source in consultation with the State Pollution control Board.

IV. Noise monitoring and prevention

- (i) Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha as a part of six-monthly compliance report.
- (ii) 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

V. Energy Conservation measures

- Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- (ii) Provide LED lights in their offices and residential areas.

VI. Waste management

- (i) The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016
- (ii) Kitchen waste shall be composted or converted to biogas for further use.(/o be decided on case to case basis depending on type and size of plant)
- (iii) Separate impervious concrete pits for disposal of sludge shall be provided for the safe disposal of sludge generated from the beneficiation operation.

VII. Green Belt and EMP

- (i) Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
- (ii) The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
- (iii) Plantation shall be raised all around the beneficiation plant site and the tailing pond around the plant, tailing disposal area, roads etc. by planting the native species in consultation with the local DFO/ Agriculture Department.

VIII. Human Health Issues

(i) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

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- (ii) The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
- (iii) 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
 - a) STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (iv) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

IX. Corporate Environment Responsibility

- (i) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-1 A.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- (ii) The company shall have a well laid down environmental policy duly approve 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, Govt. of India, Bhubaneswar as well as SEIAA, Odisha as a part of six-monthly report.
- (iii) 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.
- (iv) 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, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha along with the Six Monthly Compliance Report.
- (v) Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out
- (vi) All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Mineral Beneficiation plants shall be implemented.

X. Miscellaneous

- (i) 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.
- (ii) 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.
- (iii) 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.
- (iv) The construction and demolition wastes to be generated from the proposed project shall be disposed of in accordance with the provision under "Construction & Demolition Wastes Management Rules 2016".
- (v) The project proponent shall monitor the criteria pollutants level namely; PM₁₀, SO₂, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- (vi) 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.
- (vii) 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.
- (viii) The project proponent shall inform the Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as 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.
- (ix) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- (x) The project proponent shall abide by all the commitments and recommendations made in the ElA/EMP report and also that during their presentation to the State Level Expert Appraisal Committee.
- (xi) No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Odisha.

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- (xii) 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.
- (xiii) The SEIAA, Odisha may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- (xiv) The SEIAA, Odisha reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- (xv) The Regional Office, MoEF&CC, Govt. of India, 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.
- (xvi) The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- (xvii) 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 DECORATIVE STONE MINES & STONE QUARRY

A. Specific conditions

- 1. The Project Proponent shall obtain consent from the State Pollution Control Board, Odisha and effectively implement all the conditions stipulated therein.
- 2. Project Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and records maintained; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smokers, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. Recommendations of National Institute for Labour for ensuring good occupational environment for mine workers would also be adopted; All the old age people of the surrounding villages may be provided medical facilities.
- 3. Transport of minerals shall be done either by dedicated road or it should be ensured that the trucks/dumpers carrying the mineral should not be allowed to pass through the villages. The Project Proponent shall ensure that the road may not be damaged due to transportation of the mineral; and transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and density.
- 4. Project Proponent shall ensure the safeguard and wellbeing of villagers and school, regular health monitoring of all residents in the area and the compliance Report shall be submitted to the Regional office of the Ministry and SEIAA, Odisha.

B. Standard conditions

- 1. A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the SEIAA, Odisha 5 years in advance of final mine closure for approval.
- 2. No mining activities will be allowed in forest area, if any, for which the Forest Clearance is not available.
- 3. No change in mining technology and scope of working should be made without prior approval of the SEIAA, Odisha.
- 4. No change in the calendar plan including excavation, quantum of mineral and waste should be made.
- The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and ground water) for the project.
- 6. Mining shall be carried out as per the provisions outlined in the approved mining plan as well as by abiding to the guidelines of Directorate General Mines Safety (DGMS).
- 7. Protection of vegetation in the surrounding areas, and proper storage of solid waste, subgrade ore and their use have to be given priority during mining operation.
- 8. Digital processing of the entire lease area using remote sensing technique shall be

carried out regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment, Forest and Climate Change its Regional Office and SEIAA, Odisha.

- 9. Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM10 and PM2.5 such as haul road, loading and unloading point and transfer points. Fugitive dust emissions from all the sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard. Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board.
- 10. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations. The monitoring shall be carried out four times in a year pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board.
- 11. Transportation of the minerals by road passing through the village shall not be allowed. A 'bypass' road should be constructed (say, leaving a gap of at least 200 meters) for the purpose of transportation of the minerals so that the impact of sound, dust and accidents could be mitigated. The project proponent shall bear the cost towards the widening and strengthening of existing public road network in case the same is proposed to be used for the Project. No road movement should be allowed on existing village road network without appropriately increasing the carrying capacity of such roads.
- 12. The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.
- 13. Sufficient number of Gullies to be provided for better management of water. Regular Monitoring of pH shall be included in the monitoring plan and report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
- 14. There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board.
- 15. The Project Proponent has to take care of gullies formed on slopes. Dump mass should be consolidated with proper filling/leveling with the help of dozer/compactors.
- 16. The reclamation at waste dump sites shall be ecologically sustainable. Scientific reclamation shall be followed. The local species may be encouraged and species are so chosen that the slope, bottom of the dumps and top of the dumps are able to sustain these species. The aspect of the dump is also a factor which regulates some climatic

parameters and allows only species adopted to that micro climate.

- 17. The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time. The maximum height of the dumps shall not exceed 8m and width 20 m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
- 18. Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. The drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dumps to prevent run off of water and flow of sediments directly into the river and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.
- 19. Plantation shall be raised in a 7.5m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department and as per CPCB Guidelines. The density of the trees should be around 2500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.
- 20. The Project Proponent shall make necessary alternative arrangements, where required, in consultation with the State Government to provide alternate areas for livestock grazing, if any. In this context, Project Proponent should implement the directions of the Hon'ble Supreme Court with regard to acquiring grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded against felling and plantation of such trees should be promoted.
- 21. The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.
- 22. As per the Company Act, the CSR cost should be 2 % of average net profit of last three years. Hence CSR expenses should be as per the Company Act/Rule for the Socio

Economic Development of the neighborhood Habitats which could be planned and executed by the Project Proponent more systematically based on the 'Need based door to door survey' by established Social Institutes/Workers. The report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.

- 23. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- 24. Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.
- 25. Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
- 26. The project authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- 27. The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest and Climate Change, its Regional Office, Central Pollution Control Board and State Pollution Control Board.
- 28. A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal.
- 29. State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.
- 30. The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment, Forest and Climate Change at www.environmentclearance.nic.in and a copy of the same should be forwarded to the Regional Office.
- 31. The SEIAA, Odisha may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
- 32. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- 33. The above mentioned stipulated conditions shall be complied in a time-bound manner. Failure to comply with any of the conditions mentioned above may result in cancellation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

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5.5. HAZARDS AND RISK MANAGEMENT

5.5.1 Explosives

Blasting is done by means of explosives which are hazardous during of handling, storage and blasting.

5.5.1.1. Storage and Handling

The Applicant is advised to store the explosives as per the Indian Explosives Act, 1958 and the Explosive Rules, 1983. Necessary permissions should be obtained from the Joint Controller of Explosives to store and uses of explosives in the quarry in the magazine permit under Form - 23 or Agreement shall be made with holder of Form - 22 who can supply and fire explosives as per safety practices. However blasting in the mine or quarry shall be done as per the MMR, 1961 under the supervision of Mines Blaster certificate holder, appointed under Reg. 160 of Metalliferous Mines Regulations, 1961.

5.5.1.2. Blasting

Poorly designed shots can result in misfires early ignition and flying rock. Safety can be ensured by planning for round of shots to ensure face properly surveyed, holes correctly drilled, direction logged, the weight of explosion for good fragmentation. Blast design, charge and fire around of explosives should be carried out by a trained person.

5.5.1.3. Drilling

Slipping and Falling of labours from the edge of a bench during drilling is possible. Part of training should include instructions to face towards the open edge of the bench so any inadvertent backward step is away from the edge. Suitable portable rail fencing which can be erected between the drilling operations and the edge of the mine can be provided. Attachment of a safety line to the drilling rig and provide harness for the driller to wear can be done. Newer drill machines are provided with cabin which controls noise level within cabins. Driller operators should be protected with ear protection.

5.5.2. Loading

Possible risks during loading of mined rocks are falling of rock on the driver, plant toppling aver due to uneven ground, failure of hydraulic system, fires, fall while gaining access to operating cabin, electrocution in Draglines, failure of wire ropes in Dragline. In order to overcome these risks:

Of Carrier.

- Operator cabin should be of suitable strength to protect the driver in event of rock fall.
- Electrical supply to dragline should be properly installed with adequate earth continuity and earth leakage protection.
- Wire rope should be suitable for work undertaken and be examined periodically.
- Ensure that loaders are positioned sufficiently away from face edges

5.5.3. Transportation

Brake failure, lack of all-around visibility from driver position, vehicle movements particularly while reversing, rollover, Vibrations, Noise, Dust and improper / no signalling are some of the factors causing risk. This can be avoided by following measures:

- Visibility defects can be eliminated by the use of visibility aids such as closed circuit television and suitable mirrors.
- Edge protection is necessary to prevent inadvertent movement.
- Seatbelt to protect driver in event of vehicle rollover.
- Good maintenance and regular testing necessary to reduce possibility of brake failure.
- Avoid driving at the edge of roadway under construction
- Heavy earth moving equipment and vehicle drivers and those giving signals should be well trained.

5.5.4. Unstable face

Chances of Rock fall or slide exists. Regular examination of face must be done and remedial measures must be taken to make it safe if there is any doubt that a collapse could take place. Working should be advanced in a direction taken into account the geology such that face and quarry side remain stable.

5.5.5. General safety measures

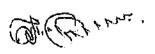
Provisions of the Mines Act, Rules and Regulations orders made there under shall be complied with, so that the safety of the mine, machinery and persons will be ensured. Permission, relaxation or exemption wherever required for the safe and scientific mining of the deposit will be obtained from the Department of Mine Safety. Copy of Agreement for handling of Explosives under License Holder at Proposed site is given in additional document.

- Safety kits should be located in easily accessible place with major first aid materials in it.
- Entry of any unauthorized person into mine and plant areas shall be completely prohibited
- Arrangements for fire fighting in the mine's office complex and mining area



- Provision of all the safety appliances such as safety boot, helmets, goggles, ear plugs etc.
 shall be made available for the employees
- Mining will be undertaken in coexistence with the requirements of the Mining Plan which shall be updated from time to time
- Handling of explosives, charging and blasting shall be undertaken only by a competent person
- Adequate safety equipment shall be provided at the explosive magazine

All the mining equipment shall be maintained as per the guidelines of the manufacturer.



CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S MAYFAIR HOTELS & RESORTS LIMITED FOR PROPOSED CONSTRUCTION OF (B+G+3) BLOCK-A & SINGLE STORIED BLOCK-B HOTEL BUILDING OF MAYFAIR BAY RESORT, PARADEEP, A UNIT OF M/S MAYFAIR HOTELS & RESORT LIMITED LOCATED AT PLOT NO.- 47(P), 56(P), KHATA NO.-01, MOUZA - NUASANDHAKUDA, DIST-JAGATSINGHPUR OF SRI BIJU JOHN - EC

PART A - SPECIFIC CONDITIONS:

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

TOPOGRAPHY AND NATURAL DRAINAGE

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

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

- 9. As proposed, fresh water requirement from ground water shall not exceed 112 KLD.
- 10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available.

This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

- 11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
- 12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
- 14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- 16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of 08 nos. shall be provided.
- 17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.
- The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

SOLID WASTE MANAGEMENT

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



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

SEWAGE TREATMENT PLANT

- 24. Sewage shall be treated in STP of capacity 120 KLD. The treated effluent from STP shall be reused for flushing, landscaping, floor & car washing.
- 25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
- 26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
- 27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
- 28. No sewage or untreated effluent water would be discharged through storm water drains.
- 29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- 30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- 31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

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

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

AIR QUALITY AND NOISE

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



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

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 2428sqm (20 % of total plot area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

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

TRANSPORT

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



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

ENVIRONMENT MANAGEMENT PLAN

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

OTHERS

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



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

PART B - GENERAL CONDITIONS

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

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

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