PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE, ODISHA HELD ON 31ST AUGUST' 2024

The SEAC met on 31st August' 2024 at 04:00 PM in the Conference Hall of Odisha State Pollution Control Board, Bhubaneswar under the Chairmanship of Sri Shashi Paul. The following members were present in the meeting.

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

CONSIDERATION OF OLD PROPOSALS (COMPLIANCE RECEIVED):

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

ITEM NO. 01

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S NEW LAXMI STEEL & POWER PVT. LTD. & M/S NEW LAXMI INDUSTRY PVT. LTD FOR EXPANSION OF EXISTING IF FROM 58,700 TPA (2 X 8 T + 1X10T) TO FINAL 4,45, 500 TPA (REPLACEMENT OF EXISTING 2 X 8T WITH NEW 2 X 25T, EXISTING 1 X 10 T AND NEW 3 X 25 T) AND NO EXPANSION OF EXISTING 1,44,000 TPA ROLLING MILL, 1,20,000 TPA STRUCTURAL MILL & 29,000 TPA GALVANIZED STEEL LOCATED ADJACENT AT JAYAMANGALA, SARUA, KHORDHA OF SRI RAHUL AGRAAWAL - TOR

1. The proposal was considered by the committee to determine the "Terms of Reference (ToR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter.
2. This proposal is for Terms of Reference (ToR) for obtaining Environmental Clearance of M/s New Laxmi Steel & Power Pvt. Ltd. & M/s New Laxmi Industry Pvt. Ltd for Expansion of existing IF from 58,700 TPA (2 X 8 T + 1X10T) to final 4,45, 500 TPA (Replacement of existing 2 X 8T with new 2 X 25T, existing 1 x 10 T and new 3 x 25 T) and No expansion of Existing 1,44,000 TPA Rolling mill, 1,20,000 TPA Structural mill & 29,000 TPA Galvanized Steel located adjacent at Jayamangala, Sarua, Khordha of Sri Rahul Agrawal.

3. **Category**: This project falls under Category "B" under 3(a) - Metallurgical Industries (ferrous and nonferrous) as per EIA Notification dated 14th Sept, 2006 and its amendments.

4. The PP proposes Merger of New Laxmi Steel & Power Pvt. Ltd. & New Laxmi Industry Pvt. Ltd., located adjacent at Jayamangala, Sarua, Khordha to form a single entity named as New Laxmi Steel & Power Pvt. Ltd. & Expansion of existing IF from 58,700 TPA (2 X 8T + 1X10T) to Final 4,45, 500 TPA (Replacement of existing 2 X 8T with new 2 X 25T, existing 1 x 10 T and new 3 x 25 T) and No expansion of Existing 1,44,000 TPA Rolling mill, 1,20,000 TPA Structural mill & 29,000 TPA Galvanized Steel.

5. **Location and connectivity**: The project site is in IDCO Land of 6.9160Ha. (17.090 acres) is located at Plot No 1974(P) & 192/244(P), 1974(P). Revenue Khata No 594 & 89 Corresponding to IDCO Plot No, A/32 corresponding to IDCO Plot No. A/22, A/23, A/24 & A/25 in Mouza: Sarua and Jayamangala. Total 17.090 Ac/6.9160 Ha. The geographical co-ordinates of the project site are - NE Extent of KML is 20.208277 to 85.541276 and SW Extent of KML is 20.205084,85.538357falls under Toposheet no. F45T7, F45T8, F45T11, F45T12. Nearest approach roads to the project site: SH 1/NH57 -0.65 km, NH 16 - 9.25km, Atri Road - 2.14km, NH14/SH13 - 11.03km and NH5 – 13.25 km. The nearest Railway Station is Khordha railway station-7.64km, Begunia railway station - 11.31km away from the project site. Nearest Airport is Biju Patnaik International Airport is at 29.01 km (S) from project site. Nearest town is Khordha Town is at 8.92 km. Nearest habitations are Jayamangala at 0.45 and Sarua at 0.71km. No National Parks, Wildlife Sanctuaries, Biosphere Reserves within 10 Km radius of the proposed site. Nearest forest is - Chandaka Dampada Sanctuary (8 Km NNE), Barunei RF (10.18 km, ESE), Tarakai RF (10.53 km, NE), Jayamangala RF (1.96km, NNE), Tartua protected forest (4.40km ENE), Jariput protected forest (7.25 km SSE). Nearest Water Body. are Chatra Nala (3.03km WSW), Narasingh Nala (0.77Km SSW), Rana River (5.33 km ENE). The area falls on under Sesmic zone III.

6. List of Statutory clearances obtained earlier

Year	NEW LAXMI INDUSTRIES PVT LTD	
2017	CTO (30/12/2016)-File No -5296/RO-CON-882 valid till 31/03/2017	**Details of Product Manufactured**
		Steel structure -50TPD
		Galvanized Steel Structure-40TPD
		Emission permitted through Stack
		MS stack attached to galvanization chamber -30m above ground level
2023	CTO	Valid From - 01/04/2023-31/03/2025
	CTO	Valid from-01/04/2023-31/03/2025
	CTE (4/02/2023)- File no-251/RO-BBSR/NOC-1351	Production of Slag Touched Metals by Processing Iron (Ferro) Slag at quantity of 700 MT/Month
	CTO (24/04/2023) -File no-1396/RO-BBSR/882 valid upto- 31/03/2025	Details of Products Manufactured
		Iron Ingot/Billet -29000MT/Annum
		Production of Slag Touched metals -7000MT/Annum
		Galvanized Steel Structure -29000MT/Annum
		Discharge Permitted -
		Outlet of ETP of Galvanizing Plant -200KLD
		Emission permitted through Stack

		Stack attached to 8TPH Induction Furnace- 30m above ground
		Oil Fired Furnace at to Zinc Melting Vessel -11m
		Stack attached to wet scrubber of galvanizing Unit - 11m
		DG set

Year	NEW LAXMI Steel & Power (P) LTD	
2008	CTE (2535) date-4/10/2008	For production of 2975MT/Month of MS Rod
2010	CTO (685/RO/CON/408) date - 28/06/10 valid up to - 31/03/2015	MS Rod: 2475MT/Month
		Emission Permitted through the Stack
		M.S Stack Attached to IF - 30mtr Above Ground Level
		Attached to RHF -30mtr Above Ground Level
	CTE (452/RO/CON/408) DATE-10/05/10	Production of MS Rod of 2450MT/Month at Sarua Industrial Estate
2021	CTO (28/04/2021) -File no - 2584/RO-CON-408valid up to 31/03/2024	Details of Products Manufactured M.S. Rod -1,44,000MT/Annum Iron Ingot Billet -29,700MT/Annum
	CTO period from (01/04/2021-31/03/2024)	To make new discharge of Sewage/trade Effluent from land premises owned

7. **The Land use breakup:**

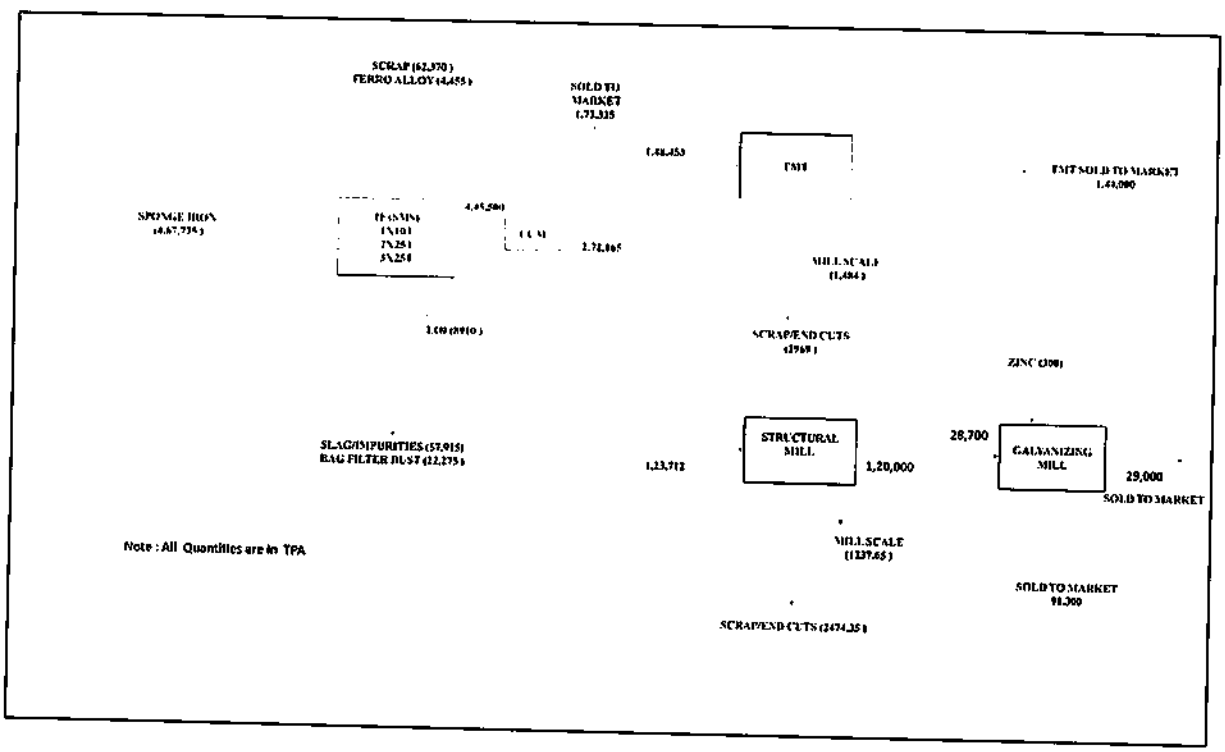
Sl. No.	Description	Area in Acres	%
1	Rolling Mill	1.751	10.294
2	Induction Furnace	1.679	9.871
3	Storage Shed	0.873	5.132
4	Structural Shed	1.042	8.242
5	Galvanized Shed	0.880	5.173
6	Office & Scale Room	0.074	0.435
7	Security Room	0.009	0.052
8	Crusher Shed	0.516	3.033
9	Labour Room	0.038	0.223
10	Parking Place	0.075	0.440
11	ETP	0.014	0.082
12	Other Facilities	1.023	6.014
13	Truck parking	0.428	2.516
14	Solid Waste	0.229	1.346
15	Surface Runoff	0.162	0.952
16	Ladle Refining Furnace	0.046	0.270
17	Raw Material Storage	0.422	2.481
18	Green Belt	5.662	33.288
19	Internal Road	1.726	10.147
TOTAL AREA		**17.009**	**100**

8. **The Plant Configuration as follows:**

	Existing		Proposed For EC	Total For EC
UNITS	**M/s. New Laxmi steel & power Pvt. Ltd.**	**M/s. New Laxmi industries Pvt. Ltd.**	**M/s. New Laxmi steel & power Pvt. Ltd.**	**M/s. New Laxmi steel & power Pvt. Ltd.**

UNITS	Existing		Proposed For EC		Total For EC
	M/s. New Laxmi steel & power Pvt. Ltd.	M/s. New Laxmi industries Pvt. Ltd.	M/s. New Laxmi steel & power Pvt. Ltd.		M/s. New Laxmi steel & power Pvt. Ltd.
Induction furnace	2 X 8T (1 Working + 1 Standby) (29700 TPA)	1 X 10T (29000 TPA)	2 X 8T to be replaced with 2x25T (1,65,000 TPA)	3 x 25 T (2,47,500 TPA)	2 x 25T +1 x 10 T + 3 x 25 T 4,45,500 TPA
Rolling mill	1x144000 TPA		-	–	1x144000 TPA
Structural mill	-	1 x 120000TPA	-	-	120000 TPA
Galvanizing plant	–	29000 TPA	-	-	29000 TPA
Slag Touched Metal (Metal Recovery)	--	7000 TPA	--	--	7000 TPA

9. INTEGRATED PROCESS FLOW CUM MATERIAL BALANCE



10. Details of Minerals:

S. No.	Raw Material	Quantity required per annum			Source	Aerial Distance from site (Kms)	Mode of Transportation
		Existing (TPA)	Expansion (TPA)	Total (TPA)			
1	Sponge Iron	61,635	381885	4,43,520	Chhatia/	80/225 KM	Road

					Keonjhar		
2	Pig iron/Scrap	8218	50,917	59135	Jajpur	135 km	Road
3	Ferro Alloy	587	3637	4224	Jajpur	135 km	Road
4	Zinc	300	-	300	Local market	100-500 km	Road

11. **Summary of products generated by the project**

	Existing		**Proposed For EC**		**Total For EC**
UNITS	**M/s. New Laxmi steel & power Pvt. Ltd.**	**M/s. New Laxmi industries Pvt. Ltd.**	**M/s. New Laxmi steel & power Pvt. Ltd.**		**M/s. New Laxmi steel & power Pvt. Ltd.**
Induction furnace	2 X 8T 29700MT/Annum	1 X 10T 29000MT/Annum	2 X 8T to 2x25T	3 x 25 T	2 x 25T +1 x 10 T + 3 x 25 T 4,45,500 TPA
Galvanizing plant	-	29000 TPA	-	-	29000 TPA
Rolling mill	1x144000 TPA 144000 TPA	–	-	–	1x144000 TPA 144000 TPA
Structural mill	--	1 x 120000 TPA 120000 TPA	–	–	120000 TPA

12. **Waste generated and management:**

S. No	Unit	Detail
1	Waste Water	ETP + STP and maintenance
2	Air	APCD (ESP, Bag Filter)
3	Hazardous Management	Proper collection, Safe Handling, Storage within premises and disposal of waste at approved TSDF, recyclers, etc as applicable

The Raw Material Handling Section would be provided with dust suppression (DS) by water sprinkling at the stockyard and multiple dust extraction (DE) systems for the dust generation points at the screen, conveyor transfer point, and gas sealing devices to arrest the dust emissions to the atmosphere. The DE system shall consist of bag filter units complete with ducts, extraction fans, and a stack of appropriate height.

The exhausted gases sucked through the Pellet plant will be cleaned in an ESP. The dust collected will be discharged into a water-sealed chamber and sent to the primary mixing unit for recirculation. Waste gases will be discharged into the atmosphere through a chimney.

13. **Baseline study has been conducted for Time period - 1st Oct 2023 to 31st Dec 2023 (Winter Season) for Air, water, soil, noise quality monitoring.**

14. **Water requirement**: The total water required is 903 KLD (Makeup).

15. Existing water requirement is 269 KLD (water requirement is obtained from ground water (Existing water Ground water permission, vide NOC No. CGWA /NOC/IND/ ORIG/2021/12823 Application No.: 21-4/2906/OR/IND/2021 Valid up to: 03/09/2024)

16. The Blow down water 163.41 KLD will be utilised in Ash quenching, sprinkling on road and plantation.

17. Proposed water requirement is 634KLD (as Ground water use will be phased out after availability of surface water at site), the source of water will be from ground water (NOC from CGWB has been obtained).

18. Existing Ground water use will be phased out after availability of surface water at site.

19. Rain Water Harvesting system - 112m3/day water will be available for rainwater Harvesting and it will be reused in process after treatment. So net Water Required will be :-903-112=791 KLD

20. **Existing Break up of water requirement**

Plant Facilities	Circulating Water m^3/day	Makeup Water m^3/day	Recirculation Water m^3/day	Evaporation m^3/day	Waste water generation m^3/day
SMS 58700 TPA	9200	101	9,099	84	16.89
Galvanizing plant 29000 TPA	1	1	0	0.5	0.50
Structural 120000 TPA	6,600	73	6,527	61	12.12
Rolling 144000 TPA	8,000	88	7,912	73	14.69
Drinking & Sanitation	5.44	5.44	-	1.088	4.352
TOTAL	**23,806**	**269**	**23,538**	**220**	**49**

21. **Proposed Break up of water requirement**

Plant Facilities	Circulating Water m^3/day	Makeup Water m^3/day	Recirculation Water m^3/day	Evaporation m^3/day	Waste water generation m^3/day
SMS 422400 TPA	66191	720	65,471	600	120
Galvanizing plant 29000 TPA	10	10	0	3	7
Rolling 120000 TPA	6,600	73	6,527	61	12.12
Rolling 144000 TPA	8,000	88	7,912	73	14.69
Drinking & Sanitation	12	12	-	2.4	9.6
TOTAL	**80,813**	**903**	**79,910**	**739.4**	**163.41**

22. **Power Requirement:** The total power requirement for plants is 47.12 MW. Existing power 10.49MW is obtained from TPCODL. Proposed Power Requirement is 36.63MW obtained from TPCODL. DG set of 750 KVA will be installed as stand by (Emergency use). Provision of Solar power: 2% of the total power consumption .is 94KW.

SL		CAPACITY			POWER CONSUMPTION IN MW			
	FACILITIES	PRESENT	After modification of Existing	PROPOSED	Existing	After modification of Existing	Proposed	Total
1	SMS	58700 TPA	198000TPA	247,500 TPA	5.56	18.75	23.44	42.19

2	Galvanizing plant	29000 TPA	29000 TPA		0.5	0.5		0.50
3	Rolling Mill	1 X 144000 TPA	1 X 144000 TPA		1.2	1.2		1.20
4	Structural Mill	120000 TPA	120000 TPA		3.0	3.0		3.03
5	Miscellaneous				0.2	0.2	0.3	0.50
TOTAL					**10.49**	**23.68**	**23.44**	**47.12**

23. **Rainwater harvesting details:** Total Volume of Runoff Available: 41037.97 m^3/yr. ≈ 41038 m^3/yr. Harvesting Potential = 41,038 / 365 = 112 m^3/day.

24. **Greenbelt:** Green Belt will be developed over an area of 33.288% of total plant area (5.662 acres. The green belt include plantation surrounding the Project boundary along the roads and around various facilities like shops and offices. 2500 number of trees per Hectare will be planted for the greenbelt development. So total no. of trees will be planted for greenbelt area = 2500 x 2.275 ha. = 5687.5 no. of tress. A three-tier plantation is proposed comprising of an outermost belt of taller trees which will act as a barrier. Local plant species will be preferred as per the CPCB guidelines in consultation with the Local Forest Department.

25. **Manpower Requirement:** Total about 295 persons are proposed to be hired for plant operations including officers, skilled and unskilled workers. Required manpower shall be sourced from local area. During Construction phase, the labours and workers will be hired from nearby villages.

Particulars	Existing	Proposed	Total
Managerial	2	2	4
Supervisory	5	3	8
Skilled	10	10	20
Semiskilled	50	80	130
Unskilled	48	85	133
Total (Direct)	**115**	**180**	**295**

26. **Project cost**: The estimated Project cost is Rs.69.51 Crore (Existing: Rs. 39.51 Crore, Proposed: Rs. 30. Crore) Rs. 4.8 Crore (Existing: Rs 2.7 Crores, Proposed: Rs 2.1 Crores).

Sl. No.	Particulars	Existing (Rs. Crores)	Proposed (Rs. Crores)	Total (Rs. Crores)
1	Land	0.8	-	0.8
2	Building	8.18	7.5	15.68
3	Plant and Machinery	27.83	20.4	48.23
4	EMP Cost	2.7	2.1	4.8
5	Others	-	-	-
	Total capital cost	**39.51**	30	**69.51**

S. No	Unit	Detail	Capital Cost (Rs. In	Operating Cost	Maintenance Cost	Total Recurring Cost

			Lakhs)	(Rs. In Lakhs)	(Rs. In Lakhs)	(Rs. In Lakhs)
1	Waste Water	ETP + STP and maintenance	54	3	1	4
2	Air	APCD (Bag Filter, Water sprinklers)	158	8	6	14
3	Solid and Hazardous Waste Management	Collection, handling, storage and disposal to authorized parties	19	0.7	0.3	1
4	Fire & Safety	Fire Extinguishers, Fire hydrant system	53	1.3	0.7	2
5	Env. Monitoring	CAAMS, CEMS, Third Party monitoring	56	1.5	0.5	2
6	Green Belt Development	Plantation	34	1.5	0.5	2
7	Occupational Health	Medical Health check-up, PPE	17	0.8	0.2	1
8	CER	Solar Panel & Road Construction etc. as required	82	4.2	0.8	5
9	Misc.	Contingency Fund	7	1.8	0.2	2
Total			480	22.8	10.2	33

27. **Environment Consultant**: The Environment consultant **M/s Visiontek Consultancy Services Private Limited., Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee on 28.02.2024.

28. 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 TOR application:

i) Justification why EC was not required for both the existing projects and why the present case will not be treated as violation case.

ii) Copies of CTE and CTO earlier obtained for both the existing units.

iii) NOC/Permission copy from concerned DFO from Chandaka Damapara wildlife sanctuary that the project site does not fall under the eco sensitive zone of the sanctuary.

iv) Supporting documents for merger of 2 units to a single unit.

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

i) Present status of the existing projects.

ii) Construction activity if any started at the site and extent of construction activity for the proposed project.

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.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent		Views of SEAC
1.	Justification why EC was not required for both the existing projects and why the present case will not be treated as violation case.	Justification why EC was not required for both the existing projects and why the present case will not be treated as violation case is given in **Annexure-1.**		**Annexure-1 is attached with the complete chronology of the case project.**
2.	Copies of CTE and CTO earlier obtained for both the existing units.	Chronology of both the plant with configuration given in annexure -1 and copy of CTE & CTO given in **Annexure-2.**		Annexure-1 and Annexure-2 is attached with the complete chronology of the case project and copy of CTO/CTE respectively.
3.	NOC/Permission copy from concerned DFO from Chandaka Damapara wildlife sanctuary that the project site does not fall under the eco sensitive zone of the sanctuary.	National Park / Wildlife Sanctuary / Biosphere Reserve / Elephant corridor / Tiger reserve / Eco-sensitive Zone / Eco sensitive Area	• Chandaka Dampada Sanctuary (8 Km NNE) • Barunei RF (10.18 km, ESE) • Tarakai RF (10.53 km, NE) • Jayamangala RF (1.96km, NNE) • Tartua protected forest(4.40km ENE) • Jariput protected forest (7.25 km SSE)	Annexure-3 is attached showing the distance of the project site from ECZ boundary is 8.7kms. **NOC/Permission copy from concerned DFO from Chandaka Damapara wildlife sanctuary has not been submitted.**
		Google earth image shows the plant boundary and distance from chandaka and Dampada Sanctury which comes more than 5 km distance from project site. It shows the project site is not coming under the eco sensitive zone of the sanctuary. Distance from Chandaka and Dampada Sanctury Attached as **Annexure-3.**		
4.	Supporting documents for merger of 2 units to a single unit.	An undertaking from the Project proponent regarding submission of Supporting documents for merger of 2 units to a single unit is attached as **Annexure-4.**		Undertaking from The project proponent has submitted undertaking **(Annexure-4 is attached)** for the given condition and further intimated to submit the merger documents prior to grant of EC.

30. The proposed site was visited by the sub-committee of SEAC on **07.06.2024**. Following are the observations of the sub-committee:

a) The site is allotted by IDCO hence infrastructures are available.

b) The plant is running with operations like- melting, rolling and galvanizing. PP explained that they are only going to upgrade the melting capacity by adding higher capacity melting furnace.

c) Green belt was observed but advised to increase. Also they should keep area clean and extent shed for keeping materials away from free area and passage for safety.

d) PP was advised to submit the following:

   i) An affidavit with regard to commencement of project on transfer of land for taking up the additional facilities and operations as proposed

   ii) Relevant documents signed with IDCO for storm water release.

   iii) Metal waste management.

   iv) Galvanising unit sludge management.

e) All other points asked during presentation to be complied.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Visiontek Consultancy Services Private Limited, Bhubaneswar**, the SEAC prescribed the ToR as per **Annexure – A** for conducting detailed EIA study with following specific ToRs

i) An affidavit with regard to commencement of project on transfer of land for taking up the additional facilities and operations as proposed

ii) Relevant documents signed with IDCO for storm water release.

iii) Metal waste management.

iv) Galvanising unit sludge management.

v) NOC/Permission copy from concerned DFO from Chandaka Damapara wildlife sanctuary that the project site does not fall under the Eco Sensitive Zone (ESZ) of the sanctuary.

vi) Supporting documents for merger of 2 units to a single unit.

ITEM NO. 02

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S. Z ESTATES PRIVATE LIMITED FOR PROPOSED (B+G+9) STORIED BUILDING FOR DEVELOPMENT OF EWS HOUSING SCHEME UNDER MODEL - 1 AMENDED HFA POLICY - 2015 OVER AN BUILT-UP AREA 45024.64 SQM PLOT NO. - 164(P), 170(P), 156(P), 210(P), KHATA NO. - 855, MOUZA - BARAMUNDA, BHUBANESWAR, DIST - KHURDA OF SRI TAPAN KUMAR MOHANTY - EC

1. This proposal is for Environmental Clearance of M/s. Z Estates Private Limited for Proposed (B+G+9) Storied Building for Development of EWS Housing Scheme Under Model-1 Amended HFA Policy-2015 over a built-up area 45024.64 sqm Plot No.- 164(P), 170(P), 156(P), 210(P), Khata No.- 855, Mouza- Baramunda, Bhubaneswar, Dist- Khurda of Sri Tapan Kumar Mohanty.
2. **Category**: This project falls under Category "B", Project or Activity 8(a): Building & Construction Projects as per EIA Notification dated 14th Sept, 2006 as its amendments.

3. **Location and connectivity**: The proposed site is located at Mouza- Bermunda, Bhubaneswar, Dist- Khurda, Odisha. The Geographical co-ordinate of the project site is: Latitude- 20°16'24.78"N & Longitude- 85°47'19.45"E. The project site is well connected with National Highway NH-16 at a distance of approx 0.6 Km in East direction. The nearest railway station is Bhubaneswar Railway station at a distance of approx 5.8 Km in South East direction. The nearest airport is Biju Patnaik Airport at a distance of approx. 3.1 Km in South East direction from project site.
4. The site is coming under Bhubaneswar Municipal Corporation (BMC).
5. **Statutory clearances obtained:**
   - BDA has handover the land vide letter no. 14571/BDA, dated 03.05.2023.
   - Water permission from Ground Water
6. The total plot area is 9874.247sqm / 2.44 Ac. /0.99 Ha. with total built-up area 41909.92 sqm.
7. **Area Statement:**

Particular	Permissible	Proposed
Plot Area	Total Plot Area- 9874.247 sqm	
Ground Coverage		3582.377 sqm (36.28%)
Total Built up Area	--	**41909.92 sqm**
Total FAR Area	--	33507.85 sqm
FAR	4.0	3.35
Maximum Height	--	30 m
Road Area	--	3552.4 sqm
Basement Parking Area	3304.264 sqm	7591.77 sqm
Total Parking		7591.77 sqm
Green Belt Area	1974.85 sqm (20%)	2196.09 sqm (22.24 %)
Green Pavers	--	183.4 sqm
Maximum No. of Floor	--	B+G+9
Power/Electricity Requirement & Sources	--	2332.0 KW Source: TPCODL
No. of DG sets	--	1 x 500 KVA
Solar Energy	--	116.6 KW (5%)
Water requirement & Sources	--	185.0 KLD (Source: Ground Water)
Waste Water Generation	--	242.0 KLD
Sewage Treatment & Disposal	--	STP Capacity- 250 KLD
Solid Waste Generation	--	985.0 kg/day
No. of Dwelling Unit	--	400 Nos.
Estimated Population- Residential, Floating/visitors	--	Residential- 2000 Nos. Floating- 200Nos.

8. **Water requirement:** Fresh make up of 185.0 m3/day will be required for the project which will be sourced from Ground Water.

Sl. No.	Description	Total Population	Per Capita Consumption (ltr/day)		Water Requirement		
					Domestic	Flushing	Total
1.	Residential Building	2000 nos	Fresh (90)	Flushing (45)	180.0	90.0	270.0
2.	Floating	200 nos	Fresh (25)	Flushing (20)	5.0	4.0	9.0
				TOTAL	185.0	94.0	279.0

9. **Wastewater details:** Total waste water generated from the residential building is 242.0 KLD which is treated in STP of Capacity 250 KLD. Out of which 230m^3/day will be recycled within the project for flushing (94m^3/day), landscaping (14.5m^3/day), dust suppression (11.8m^3/day) and 109.7m^3/day (summer) and 136.0m^3/day (non-monsoon) will become surplus which will be discharged to drain.

Details	Water (KLD)
Water requirement for domestic purpose	185.0
Wastewater generated from domestic use (@ 80 % of domestic water requirement)	148.0
Water requirement for Flushing Purpose	94.0
Wastewater generated from Flushing (@ 100 % of flushing requirement)	94.0
Total Wastewater generated	148+94 = 242.0
Sewage Treatment Plant Capacity	250.0
STP Loss (5 % of wastewater generation)	12.0
Recycled water form STP @ 95 % of wastewater generated	230.0
Landscaping	14.5
Dust Suppression	11.8

10. **Rainwater harvesting details:** Total 12 nos. of Rainwater harvesting pits will be provided for storage of rain water of quantity 262.24 cum.

11. **Parking details:** Total parking area provided is 7591.77 Sq.mt. and total 237 nos. of ECS and location of parking area is Basement.

12. **Power Requirement:** Total Power requirement of the proposed building is 2332.0 KW, Source is TPCODL, 2 x 500 KVA DG Sets is provided. Total Solar Power Generation is 116.7 KW which is 5.0% of total power required in project.

13. **Firefighting Installations:** Fire Fighting will be provided as per NBC Norms.

14. **Solid waste generation:** Solid waste generated and its management is as follows:

S. No.	Category	Counts (heads)	Waste generated (kg/day)
1.	Residential	2000 @ 0.15 kg/day	900.0
2.	Floating	200 @ 0.10 kg/day	30.0

S. No.	Category	Counts (heads)	Waste generated (kg/day)
3.	STP sludge		55.0
		Total Solid Waste Generated	985.0 kg/day

15. **Greenbelt:** Greenbelt is developed over an area of 2196.09 sqm which is 22.24% of the total plot area. Total 124 nos. of plants to be planted with 3 tier plantations.

16. **Project cost**: The estimated project cost is 75.0 Crores and cost for EMP is 1.7 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 on 17.05.2024.

18. The SEAC in its meeting held on dated **17-05-2024** recommended the following:

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

i) The proponent shall submit the documents for the land and change the kissam of land to 'Gharabari'.

ii) Clarification regarding whether the approach road for usage by the project proponent is a government road or private road.

iii) NOC/ permission from concerned department for discharge of excess treated water to the nearby existing drain.

iv) Submit the agreement letter with Bhubaneswar Development Authority for approval of construction.

v) Explore possibilities for reducing the water discharge to drains.

vi) Submit the authorized letter with Bhubaneswar Municipal Corporation for taking up of all the organic waste generated. Else there should be provision of Organic Waste Converter within the premises.

vii) Submit the relevant document on the bylaws for provision of parking space that is followed by the proponent.

viii) Submit the document of handing over of the land by the Government to the proponent for taking up of the EWS provision.

ix) Details of changes made in presentation w.r.t online documents submitted in Parivesh Portal.

x) NOC/Permission to be obtained from CGWA for usage of ground water.

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

a) Environmental settings of the project site.

b) Extent of construction activity and operational status of all the units.

c) Road connectivity to the project site.

d) Drainage network at the site.

e) Greenbelt development in the existing plant.

f) Solid waste management practice of the existing plant.

g) Vacant land available.

h) Any other issues including local issues.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	The proponent shall submit the documents for the land and change the kissam of land to 'Gharabari'.	Since this is a government land allotted by Bhubaneswar Development Authority (BDA) through development agreement the conversion is not applicable.	The PP intimates that BDA has allocated the land and conversion is not applicable.
2.	Clarification regarding whether the approach road for usage by the project proponent is a government road or private road.	This is a government road. As the proposed site is coming under Bhubaneswar Development Authority (BDA) and hand over to Z-Estate Pvt. Ltd. for development of EWS/Affordable housing project.	The PP intimates that the approach road is a government road and it is handed over to the PP for EWS project.
3.	NOC/ permission from concerned department for discharge of excess treated water to the nearby existing drain.	The EIDP plan will be submitted after getting building plan approval from BMC.	The PP intimates that they will submit EIDP plan after BMC building plan approval.
4.	Submit the agreement letter with Bhubaneswar Development Authority for approval of construction.	Development agreement between Bhubaneswar Development Authority (BDA) & Z-Estate Pvt. Ltd. is attached in **Annexure-1**.	Annexure-1 is attached and complied.
5.	Explore possibilities for reducing the water discharge to drains.	Only Excess Storm water shall be discharged to Main drain.	The unit intimated that they will discharge excess storm water to main drain.
6.	Submit the authorized letter with Bhubaneswar Municipal Corporation for taking up of all the organic waste generated. Else there should be provision of Organic Waste Converter within the premises.	The EIDP plan will be submitted after getting approval from BMC. Concern letter shall be submitted only before getting Occupancy certificate, after handing over the project to BDA.	The PP intimates that they will submit EIDP plan after BMC approval and the authorized letter for collection of organic waste and getting project handed over to BDA.
7.	Submit the relevant document on the bylaws for provision of parking space that is followed by the proponent.	Provision of parking has been provided as per clause no 37 (OFF STREET PARKING) TABLE NO-10 SUB CLAUSE NO-iii of ODA (PLANNING AND BUILDING STANDARDS) RULES, 2020. (For the residential apartments and housing projects, for the dwelling units in EWS/LIG category: Parking requirement shall be	PP has intimated that Parking requirement shall be calculated at minimum of 10% of total built-up area of such dwelling units. No relevant

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		calculated at minimum of 10% of total built-up area of such dwelling units.	documents has been provided on the bylaws for provision of 10% parking space under EWS project.
8.	Submit the document of handing over of the land by the Government to the proponent for taking up of the EWS provision.	Bhubaneswar Development Authority (BDA) has allotted the land to Z-Estate Pvt. Ltd. for development of EWS unit. Handling over document is attached in **Annexure-2** and Development agreement between Bhubaneswar Development Authority (BDA) & Z Estate Pvt. Ltd. is attached in **Annexure-1.**	Annexure 1 & 2 is attached and complied.
9.	Details of changes made in presentation w.r.t online documents submitted in Parivesh Portal.	Detail area statement is attachment in **Annexure-3.**	Annexure-3 is attached and complied.
10.	NOC/Permission to be obtained from CGWA for usage of ground water.	Ground Water permission will be submitted before applying for Occupancy. During construction phase, we will not be using any ground water for construction purpose.	PP intimated that they will submit NOC/Permission from CGWA before applying for occupancy.

20. The proposed site was visited by the sub-committee of SEAC on **17.06.2024**. Following are the observations of the sub-committee:

a) The land has an approach road. There is no construction activities taken up.

b) There is a drain at about 50 mts from the land. PP informed that they will taken permission to discharge the excess treated water through constructing drain/pipe at road side from their land to the nearby drain.

c) PP was asked to submit the following if not submitted:

i) Permission for discharge of excess treated water and storm water to the nearby drain along with permission to construct drain at road side or through Pipeline.

ii) All statutory permission including NOC from airport authority, fire, structure and stability etc.

iii) Greenbelt layout with minimum 20%.

iv) All other points asked during presentation to be complied.

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

i) There is a drain at about 50 mts from the land. PP informed that they will be take permission to discharge the excess treated water through constructing drain/pipe at road side from their land to the nearby drain. NOC/ Permission for discharge of excess treated water and storm water to the nearby public drain along with permission to construct drain at road side or through Pipeline.

ii) All statutory permission including NOC from airport authority, fire, structure and stability etc.

iii) The unit intimated that they will discharge excess storm water to main drain in ADS which is contradictory with site visit report.

iv) PP intimated that they will obtain NOC/Permission from CGWA before applying for occupancy.

v) No relevant documents has been submitted on the bye laws for provision of parking space i.e., 10% of total built-up area is for parking space for such dwelling units.

vi) The PP intimates that they will submit EIDP plan after BMC approval and the authorized letter for collection of organic waste and getting project handed over to BDA. An undertaking to this effect shall be submitted.

vii) Copy of application submitted for grant of NoC/Permission from CGWA for usage of ground water. Permission / NOC from CGWA for withdrawal of the required quantity of ground water needs to be obtained.

ITEM NO. 03

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S ACRERISE REALTY LLP FOR RESIDENTIAL PROJECT THE TOTAL LAND AREA IS 10,885.95 M^2 (2.68 ACRES) (NET AREA 10,086.11 M^2 (2.49 ACRES) AND THE TOTAL PROPOSED BUILT-UP AREA IS 60,106.84 M^2 AT MOUZA BIDYADHARPUR, TEHSIL-BARANG, PS - CUTTACK SADAR, DISTRICT - CUTTACK OF MR SHEIKH MAIRAJUL HAQUE - EC

1. This proposal is for Environmental Clearance of M/s Acrerise Realty LLP for Residential Project the Total land area is 10,885.95 m2 (2.68 acre) (Net area 10,086.11 m2 (2.49 acre) and the total proposed built-up area is 60,106.84 m2 at Mouza Bidyadharpur, Tehsil-Barang, PS - Cuttack Sadar, District-Cuttack of Mr Sheikh Mairajul Haque.
2. **Category**: As per the EIA Notification, 2006 and its subsequent amendments, the proposed project falls under 8 (a): Building & Construction projects.
3. **Location and Connectivity:** The project site is located at Plot No- 929, Khata no. - 326/279 Mouza – Bidyadharpur, Tehsil- Barang, District- Cuttack Sadar, Odisha. The geographical co-ordinates of the project site are - Latitude 20°27'22.93"N and Longitude 85°48'33.74"E falling under the Toposheet no. F45T15.The Nearest Highway is NH-16 which is approx. 7.7km in ESE direction from the project site. The nearest Railway Station is Naraj Marthapur Railway Station is about 2.8 km (W) away from the project site. Nearest Airport is Biju Patnaik International Airport is at 21 km (S) from project site. Nearest Sanctuaries are Chandaka Dampara ESZ Boundary – 1.65 km, S direction, Chandaka Dampara WLS- 2.35 km, S direction, Nandankanan ESZ boundary- 5.15 km, S direction & Nandankanan WLS- 5.2 km, S direction.
4. The site is coming under Cuttack Development Authority.
5. Total Plot area is 10,086.11 m^2 (2.49 acre) and the Built-up area = 60,106.84 m^2.
6. There is temporary tin shed structures existing at site for storage of construction material which will be dismantled and disposed as per C&D Rules, 2016.
7. The project consists of 384 nos. of Residential Dwelling Units and total population 2649 persons.
8. **The Building Area Details of the Project is:**

S. No.	Particulars	Area (m^2)
1.	Total Plot Area	10,086.95
2.	Permissible Ground Coverage (@40% of the net plot area)	4,034.444
3.	Proposed Ground Coverage (@29.94% of the plot area)	3,019.781
4.	Permissible FAR (@5 of the plot area)	50,430.55
5.	Total Proposed FAR (@4.77 of the plot area)	48,068.69
6.	Non-FAR-Area	12,038.15
7.	**Built-up Area (5+6)**	**60,106.84**
8.	Greenbelt Area (@20% of the plot area)	2017.222
9.	Maximum Height of the Building (m)	80.38

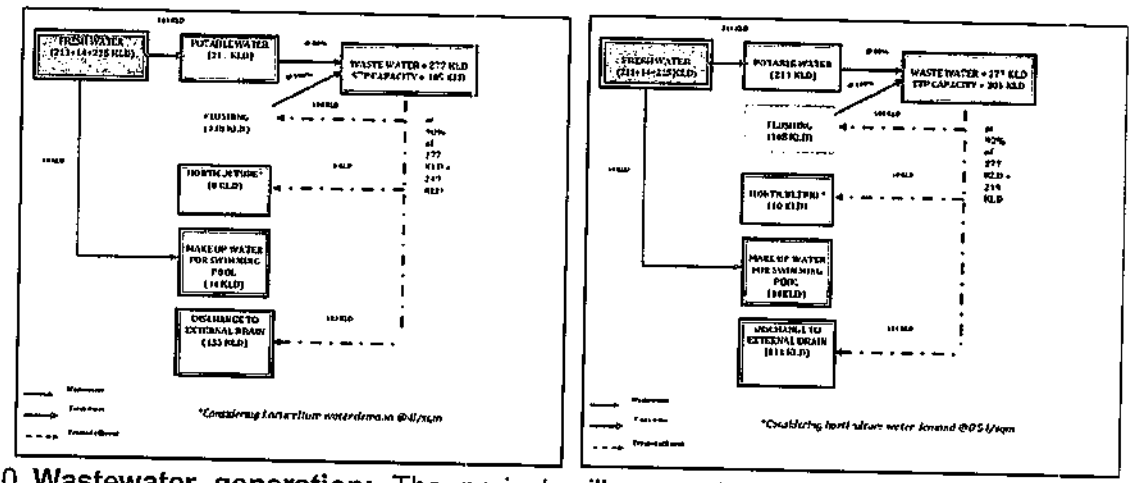
POPULATION BREAK-UP

S. No.	Description	DUs/FAR (sqm)	PPU	Total Population
1.	Residents (3 BHK)	384	6	2,304
2.	Maintenance Staff	@5%		115
3.	Visitors	@10%		230
	Total Population			**2,649**

9. **Water Requirement:** During operation phase, the source of water supply will be Ground water. The total water requirement for the project will be approx. 225 KLD out of which domestic fresh water demand is 211 KLD and 14KLD for Swimming Pool water. The total fresh water requirement will be 225 KLD. 133KLD of surplus treated water in summer period, 131KLD in Monsoon period & 137KLD in Winter period will be discharged to external sewer.

S. No.	Description	Occupancy	Rate of water demand (lpcd)		Total Water Requirement (KLD)		
A.	**Domestic Water:**		Fresh	Flushing	Fresh	Flushing	Total
	Residents	2304	90	45	207.36	103.68	311.04
	Staff	115	25	20	2.875	2.3	5.17
	Visitors	230	5	10	1.15	2.3	3.45
					211KLD	**108 KLD**	**319 KLD**
Total Domestic Water = 319 KLD							
B.	Horticulture	2,17.222 m^2	4 l/sqm		**8 KLD**		
C.	Make Up water for swimming pool(240 sqm)	240sqm x 1.2@5% of water			14 KLD		
Grand Total (A+B+C) = 341 KLD							

WATER BALANCE DIAGRAM (Summer Season) WATER BALANCE DIAGRAM (Monsoon Season)



10. **Wastewater generation:** The project will generate approx. 277 KLD of wastewater. The wastewater will be treated in onsite STP of 305 KL capacity. The treated effluent will be reused for flushing & horticulture.

11. **Power Requirement:** The power supply will be through TP Central Odisha Distribution Limited (TPCODL). The total maximum demand load is estimated as 1752 KW. 5% of the total power demand will be met through solar energy i.e. 87.6KW along with 5% for LED lighting and other conservation measures. Solar energy will be utilized for street lighting, solar blinkers and signage to reduce electricity consumption. There is provision of 2 nos. of DG sets of total 500 kVA capacity for power back up. The minimum height of stack to be provided with each generator set is 85mtr.

12. **Rainwater harvesting:** 3 RWH tanks of 175 m^3 capacity each are proposed to collect rainwater for 484.06 m^3 runoff load.

13. **Parking Requirement:** Parking area required = 12017.17 m^2 and Proposed Parking Area =12052 m^2/ 478 ECS. The parking will be provided in following areas - Basement Parking Area = 7826.95m^2/286 ECS, Open Parking Area = 2807.52 m^2/98 ECS, Stack Parking Area =1417.53 m^2/94ECS. Provision for Visitors Parking is also given in an Area of 1205m^2 (10%). Provision for EV charging points in an area of 3700 m^2 (30%) is also there.

14. **Fire Fighting Installation:** Firefighting measures will be adopted as per the guidelines of NBC. External yard hydrants shall be installed around all buildings in the complex in galvanized steel fire house cabinet (weatherproof). All external yard hydrants shall be at one meter height from finished ground level as per NBC at a distance of 60 m along the road. External fire hydrants shall be located such that no portion of any building is more than 45 m from a hydrant and the external hydrants are not vulnerable to mechanical or vehicular damage.

15. **Green Belt Development:** Total green area measures 2,017.222 m2 i.e., 20% of the plot area. Evergreen tall and ornamental trees have been proposed to be planted inside the premises. No. of trees required = 1 tree/80 sq.m. of Net plot area =10,086.11/80 = 126 Nos. Total no. of trees proposed = 130 trees

16. **Solid Waste Management:** During the operation phase, waste will comprise domestic as well as horticultural waste. The solid waste generated from the project shall be approx. 1253kg per day (@ 0.5 kg per capita per day for residents, @ 0.15 kg per capita per day for the visitor, 0.25 kg per capita per day for the staff members and landscape waste @ 0.2 kg/acre/day. The solid

waste will be collected then segregated at source. Adequate number of colored bins (green, blue & dark grey) separate for bio-degradable and non-biodegradable are proposed to be provided at the strategic locations within the site.STP sludge is proposed to be used for horticultural purpose as manure. Horticultural Waste/ Biodegradable waste will be composted by Organic Waste Converter.50 sqm area has been proposed for OWC.Spent oil from DG sets will be sold to CPCB authorised recyclers.

S. No.	Description	Occupancy	Norms (kg/capita/day)	Waste Generated (kg/day)
1.	**Domestic Solid Waste**			
	Residents	2,304	0.5	1,152
	Staff	115	0.25	28.75
	Visitors	230	0.15	34.5
2.	Horticultural Waste (0.54 acre)	@ 0.2 kg/acre/day		0.099
3.	STP Sludge	Wastewater x 0 .35 x B.O.D difference/1000		37.81
Total Solid Waste Generation = 1253 kg/day				

17. **Traffic Study Report has been vetted by KIIT and LOS calculated as "A" after 10 years with or without project.**

18. **Project cost:** The estimated Project cost is 266.50 Crores (Land and Development Cost) and cost form EMP is 167.996 lakhs (capital cost – 133.25 lakhs + recurring cost - 34.746lakhs).

COMPONENT	CAPITAL COST (INR LAKH)	RECURRING COST (INR LAKH/YR)
Sewage Treatment Plant	94.5	18.7
Rain Water Harvesting System	12	2.25
Solid Waste Management	7	1.701
Environmental Monitoring	3.75	9
Green Area/ Landscape Area	5	0.595
Others (Energy saving devices, miscellaneous)	11	2.5
Total	**133.25**	**34.746**

19. **Environment Consultant**: The Environment consultant **M/s Grass Roots Research & Creation India (P) Ltd. Noida** along with the proponent made a presentation on the proposal before the Committee on 09.05.2024.

20. The SEAC in its meeting held on dated **09-05-2024** recommended the following:

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

i. Provision should be explored for procurement of river water, since river is at 300meters or PHED Water supply rather than usage of ground water. NOC/Permission from concerned authority for usage of water to be submitted.

ii. Drainage map if deposited for approval from the concerned authority to be submitted.

iii. As stated by Project Proponent, the project site is 800meters away from nearest public drain. The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or

from the appropriate authority for disposal of excess STP treated water and storm water to the nearest drain. Also, in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall submit the permission and possession as the case may be. Details may be submitted with supporting documents.

iv. Ensure that the differences between the reduced level of the bottom of rainwater harvesting pits and the reduced level of ground water during rainy season are adequate for effective recharge of collected rainwater and submit the report for the same.

v. Precautionary measures should be taken for noise pollution and dust management during the construction phase.

vi. Revisit water balance to reduce the discharge of treated water to drain. The PP should explore ways to reduce the quantity of water discharge by increasing the plantation.

vii. During construction phase, the soil dug out from project site, should be stored properly and be used for plantation otherwise if shifted to another place then transportation of dug soil should be managed properly so that public don't face dust pollution.

viii. Before starting the construction project physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted

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

i) Environmental settings of the project site.

ii) Verify if the site is a flood prone area.

iii) Construction activity if any started at the site and extent of construction activity.

iv) Road connectivity to the project site.

v) Drainage network at the site along with plan of discharging excess treated sewage water and storm water to the nearest public drain.

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

vii) Any other issues including local issues.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Provision should be explored for procurement of river water, since river is at 300meters or PHED Water supply rather than usage of ground water. NOC/Permission from concerned authority for usage of water to be submitted.	Ground water permission vide NOC no.- CGWA/NOC/INF/ORIG/2023/19472 dated 27.10.2023 has been obtained from department of Water Resources, River Development & Ganga Rejuvenation CGWA and same is attached as **Annexure- I.**	Annexure - I is attached regarding CGWA permission for 206.50KLD valid till 26-10-2028. However, there is no plan proposed by PP for procurement of river water, since

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
			river is at 300meters or PHED Water supply
2.	Drainage map if deposited for approval from the concerned authority to be submitted.	Drainage map is attached as **Annexure-II.**	Annexure - II is attached and complied.
3.	As stated by Project Proponent, the project site is 800meters away from nearest public drain. The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess STP treated water and storm water to the nearest drain. Also, in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall submit the permission and possession as the case may be. Details may be submitted with supporting documents.	**NOC/Permission for discharge of excess rain – treated water** into the dead Irrigation Canal situated in front of the project site has been obtained from Pradeep Kumar Rout, Corporator, ward no -3, Cuttack Municipal Corporation vide letter no. PKR/03/24-25/01 dated 08.08.2024. Copy attached as **Annexure-III.**	Annexure - III is attached and complied.
4.	Ensure that the differences between the reduced level of the bottom of rainwater harvesting pits and the reduced level of ground water during rainy season are adequate for effective recharge of collected rainwater and submit the report for the same.	Groundwater level is at 1.5 meters from the existing Reduced Level (RL), and the Finished Ground Level (FGL) is 2.6 meters above the RL, the total height from the FGL to the groundwater level will be 4.1 meters. We have provided a recharge pit 2 with a depth of 2.9 meters, which will be adequate for effective groundwater recharge.	Complied.
5.	Precautionary measures should be taken for noise pollution and dust management during the construction phase.	Following precautionary measures would be taken; into consideration to mitigate the noise at construction site: 1. Use of well-maintained equipment fitted with silencers and providing noise shields near the heavy construction operations 2. Acoustic enclosures would be provide to DG sets at the construction site, 3. Earmuff and other protection devices shall be provided to labor working in high noise generating machines. 4. High noise activities shall be carried out during daytime. Following precautionary measures would be taken; into consideration to mitigate the dust management at construction site: 1. The dust emissions will be	Complied

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		controlled by regular water sprinkling. 2. Personal Protective Equipment (PPEs) such as dust masks, goggles, earplugs/ earmuffs, safety gloves, safety belts, safety shoe with toe protection, gumboots will be made available at construction site. 3. Greenbelt development 4. Transportation of construction material and waste through covered trucks.	
6.	Revisit water balance to reduce the discharge of treated water to drain. The PP should explore ways to reduce the quantity of water discharge by increasing the plantation.	Water balance has been revised to reduce the discharge quantity. Revised water balance is enclosed as **Annexure – IV.**	Annexure – IV as revised water balance is attached. Fresh water - 225KLD, and 131KLD treated water will be discharged to drain.
7.	During construction phase, the soil dug out from project site, should be stored properly and be used for plantation otherwise if shifted to another place then transportation of dug soil should be managed properly so that public don't face dust pollution.	During construction phase, the soil dug out from the project site will be first temporarily stored in an area earmarked within project and later reused for filling the site. Surplus soil will be disposed through a local vendor for filling up low lying areas in vicinity.	Complied
8.	Before starting the construction project physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted	Physical properties as well as engineering properties of the soil along with its bearing capacity has been examined. Soil Investigation report is attached as **Annexure-V.**	Soil Investigation report is attached as Annexure-V and complied.

22. The proposed site was visited by the sub-committee of SEAC on **05.07.2024**. Following are the observations of the sub-committee:

a) The site is located in the bank of river Kathajodi having a river side road of about 50-60 ft which is under construction.

b) There has been no construction in the site. The site boundary is adjacent to a long dead Nala/Canal to which the PP proposed to discharge the excess treated water and storm water.

c) The PP was asked to submit the following:

i) Permission from the authority to allow discharge of excess treated water and storm water (If not obtained, they need to get it before construction work)

ii) PP need to construct a protection wall (the design of which to be approved by a structural engineer) at the front side having their boundary close to the Nala/Canal

iii) Submit different water levels explaining how to combat water logging and temporary flooding

iv) Take up plantation (green belt) to plus 20% beyond basement roof.

v) Structural stability from authorised agency.

d) All other points asked during presentation to be complied along with statutory clearances

Considering the information furnished and the presentation made by the consultant, **M/s Grass Roots Research & Creation India (P) Ltd. Noida** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per **Annexure – B** in addition to the following specific conditions.

i) The PP shall ensure to combat water logging and temporary flooding in the project premises.

ii) The PP should take up plantation (green belt) to plus 20% beyond basement roof.

iii) The PP need to construct a protection wall (the design of which to be approved by a structural engineer) at the front side having their boundary close to the Nala/Canal.

iv) 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.

v) 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.

vi) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.

vii) The proponent shall obtain permission from concerned Fire Safety Authority.

viii) The commercial block to be used only for the residents of that apartment as mentioned by PP.

ix) Trees located within the project area shall be transplanted to alongside the boundary green development area.

x) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.

xi) 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.

xii) 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.

xiii) Before starting the construction project physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.

xiv) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

ITEM NO. 04

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/s KJST IRON, MANGANESE & BAUXITE MINE FOR EXPANSION IN IRON ORE PRODUCTION CAPACITY FROM 2.80 TO 3.35 MTPA ROM AND BAUXITE (ML AREA: 188.268 HA) PRODUCTION CAPACITY 0.13 MTPA ALONG WITH 3 CRUSHING UNIT AND 6 SCREENING UNITS AT VILLAGES KALMANGA, JALDIHI, SIDIMBA AND TANTIGRAM, TEHSIL: KOIRA, DISTRICT: SUNDERGARH OF SRI PRABODH MOHANTY- EC.

1. This proposal is for Environmental Clearance of M/s KJST Iron, Manganese & Bauxite Mine for expansion in Iron Ore production Capacity from 2.80 to 3.35 MTPA ROM and Bauxite (ML Area: 188.268 ha) production Capacity 0.13 MTPA along with 3 crushing unit and 6 screening units at villages Kalmanga, Jaldihi, Sidimba and Tantigram, Tehsil: Koira, District: Sundergarh of Sri Prabodh Mohanty under 7(ii) (a) of EIA notification 2006 as per MoEF&CC, Govt. of India OM dated 11th April 2022.

2. The MoEF&CC, Govt. of India vide Office Memorandum (O.M.) no. F. No. IA3-22/10/2022-IA.III [E177258] dated 11/4/2022 has issued guidelines for granting Environmental clearance under para 7(ii)(a) of EIA Notification 2006 for expansion upto 50%, within the existing premises / mining lease area, without additional land acquisition and Environmental Public Hearing. The proponent has requested for 20% increase in Iron Ore production capacity without change in production capacity of Bauxite Ore under above OM of MoEF&CC, Govt. of India.

3. **Category**: This project falls under Category "B" or Schedule 1(a): Mining of Minerals as per EIA Notification dated 14th Sept, 2006 and its amendments.

4. This application has been made under 7(ii) for grant of EC. TOR approval is not required as per EIA notification, 2006 and subsequent amendment.

5. **Public hearing details:** The Public hearing was conducted successfully on 29.09.2021 at 11:00 AM.

6. **List of Environmental Clearances obtained earlier –**

Environmental Clearance for 0.7 MTPA of Iron Ore production capacity and 0.05 MTPA of Bauxite was obtained from MoEF&CC, New Delhi.	28.01.2008
Amendment in EC letter no. J-11015/417/2006-IA. II (M) dated 28.01.2008 w.r.t "deletion of specific condition (ii) Environmental Clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the competent authority, was issued from MoEF&CC, New Delhi.	24.06.2015.
Environmental Clearance for enhanced production of 2.0169 MTPA Iron ore and 0.13 MTPA of Bauxite over an area of 188.523 ha excluding 11.006 ha of	24.06.2015.

forest land was obtained from MoEF&CC, New Delhi.	
KJST Iron Ore, Manganese and Bauxite Mine (ML Area: 188.268 ha) with expansion in Iron Ore production Capacity from 2.0169 to 2.80 MTPA ROM (2.41 MTPA Iron Ore+0.39 MTPA mineral Reject), Iron Ore waste 1.50 MTPA, Top Soil 0.008 MTPA and Bauxite Production Capacity 0.13 MTPA (ROM), Bauxite waste 0.10 MTPA (Total Excavation: 4.538 MTPA) along with 3 crushing unit and 6 screening units at villages Kalmanga, Jaldihi , Sidimba and Tantigram, Tehsil: Koira, District: Sundergarh, Odisha was obtained from MoEF&CC, New Delhi.	29.07.2022
Certified compliance report for the existing EC conditions by Regional Officer, MoEF&CC, Bhubaneswar vide file no. 101-844/24/EPE	01.04.2024

7. **List of Statutory Clearances obtained earlier -**

a) Mining Lease for Iron & Manganese Ore over an area of 333.063 ha was granted by Govt. of Odisha, Mining & Geology Department vide letter no. 13775/MG. Bhubaneswar on 27.11.1986 in favor of Late S.N. Mohanty. Lease deed was executed on 20.01.1987 for a period of 20 years from 20.01.1987 to 19.01.2007. Lease was inherited by Shri Prabodh Mohanty vide Government of Odisha order dated 11.03.1999 subsequent to the demise of original lessee S.N Mohanty.

b) The supplementary lease deed of ML area over 188.268 ha has been executed on 14.07.2016 for 50 years in all total w.e.f. 20.01.1987 to 19.01.2037 as per section 8A of the Mines and Minerals (Development & Regulation) amendment Act 2015 in favor of Shri Prabodh Mohanty, Son of Late S.N. Mohanty (Original Lessee) and also power of attorney of all the legal heirs of Late S.N. Mohanty, At/Po/PS Barbil, Dist - Keonjhar, Odisha.

c) Review of Mining Plan along with Progressive Mine Closure Plan approved by IBM vide their letter no RMP/A/17-ORI/BHU/2020-21/1957 dated 20.10.2020.

d) Modified mining plan has been approved vide letter no. MCDR-MiFL0FE/13/2022-BBS-IBM_RO_BBS dated 23.11.2023.

e) **Status Forest Clearance:**

S. No.	Particular	Dated
1.	Temporary working permission (TWP) over already broken upon forest area of 18.814 ha was obtained from MoEF&CC, New Delhi.	12.06.2008
2.	Stage I Forest Clearance was obtained from MoEF (FC Division) for 177.517 ha area.	06.11.2008
3.	Final (Stage-II) Clearance for the diversion of 177.517 ha (101.658 ha + 75.859 ha) of forest land excluding safety zone & area for public use over 11.006 ha was obtained from MoEF&CC, New Delhi.	31.07.2009
4.	Stage-I Forest clearance over 11.006 ha consisting of 9.778 ha safety zone and 1.228 ha area for public purpose was obtained from MoEF&CC, New Delhi.	29.06.2017

5.	Final clearance (Stage-II) over 11.006 ha consisting of 9.778 ha safety zone and 1.228 ha area for public purpose was obtained from MoEF&CC, New Delhi.	26.08.2019

8. **Location and connectivity:** KJST Iron, Manganese and Bauxite Mine (ML Area: 188.268 ha) with expansion in Iron Ore production Capacity from 2.80 MTPA to 3.35 MTPA ROM (up to 20% increase in production, Iron ore + Mineral reject/sub grade), Iron ore waste 0.929 MTPA, Top soil 0.003 MTPA and Bauxite production capacity remaining same 0.13 MTPA (ROM), Bauxite waste 0.027 MTPA (Total excavation 4.439 MTPA) along with 3 crushing units and 6 Screening units at villages Kalmanga, Jaldihi, Sidimba and Tantigram, Tehsil: Koira, District: Sundergarh, Odisha. The geo-coordinates of project site is Latitude: 21°51'03.36" N to 21°51'58.28" N and Longitude: 85°14'00.58" E to 85°15'08.91" E. The project falls under Survey of India bearing Topo sheet no. F45N1, F45N5. The Nearest State / National Highway is NH – 215 (~ 4.5 km in North direction), Nearest Railway Station is Barsuan Railway Station (~12.0 km in NW direction), Nearest Airport-Rourkela Airport, (~50 km in NW direction), Nearest Town/City-Koira (~4.6 km in North Direction). There is no National Park, Wildlife Sanctuary, Biosphere Reserves, Tiger Reserves and Wildlife Corridors etc. within 10 km radius of the mining lease area. There 7 Reserve Forest areas are coming in study area.

9. **Baseline study conducted:** Baseline study was conducted during December 2023 to February 2024 in the core zone (ML area) and buffer zone (10 Km radius) of the project site.

   a) **Ambient Air monitoring: -** Ambient Air Quality was monitored at eight sampling stations. PM_{10} is within range of 55.56 µg/m^3 to 84.09 µg/m^3, $PM_{2.5}$ is within range of 30.56 µg/m^3 to 46.25 µg/m^3, SO_2 is within range of 4.25 µg/m^3 to 12.31 µg/m^3 and NO_X is within range of 13.36 µg/m^3 to 22.34 µg/m^3.

   b) **Ground Water quality monitoring:** Ground water quality parameters were monitored at 4 locations. pH is within range of 6.6 – 7.2, Total Hardness – 22– 70mg/l, Chloride - 6.8 – 13.6 mg/l, Fluoride – 0.4-0.65 mg/l, TDS - 26- 104mg/l, Cd <0.001, As <0.001, Hg<0.0005) mg/l,

   c) **Surface Water quality monitoring:** Surface water quality parameters were monitored at 5 locations. pH is within range of 6.7 – 6.75, Dissolved Oxygen – 6.5 – 6.9 mg/l Biochemical Oxygen Demand – 1.5-2.8 mg/l Chemical Oxygen demand – 5.0-12 mg/l.

   d) **Ambient Noise monitoring:** Noise level in the study area was monitored at eight sites. Noise levels vary from 43.5 dB(A) - 54.7 dB(A) during daytime and 36.2 dB(A) - 44.32 dB(A) during night time.

   e) **Soil monitoring:** Soil samples were collected from five locations. The range of pH varied from 4.8 to 6.6, Potassium –201.6 to 295.7 Kg/ Ha, Phosphorous - 13.4 to 17.8 Kg/ Ha, Nitrogen – 201 - 314Kg/Ha, Electrical Conductivity- 38 to 98 MS/Cm.

10. **Water requirement**: Total water requirement will be 86 KLD which will be sourced from Rainwater Harvesting ponds within ML area and Teheri Nala. Permission has been obtained from Water Resource Department, Odisha.

11. **Waste water management:** Domestic waste water is being disposed through the 2 nos. of existing STP (30 KLD). All water discharge points at the lease area to external is being regularly monitored. Surface run-off water will be canalized through the seasonal water course to

accumulate at the lowermost level, percolate down through the strata and enrich the ground water table. A rain water harvesting pond has been constructed for storage of water and utilization in the mining activities.

12. **Rainwater harvesting details**: A rain water harvesting pond has been constructed for storage of water and utilization in the mining activities. Rain Water harvesting pond (Length 50m, width 30m, height 15m).

13. **Products generated:**

Product	As Per Previous EC	As per present proposal
Iron ore	2.8 MTPA	3.35 MTPA (20% enhancement under 7 (ii) (a)
Bauxite Ore	0.13 MTPA	0.13 MTPA (No enhancement in production)

14. Mining Plan Details:

a) **Details of Minerals:**

S. No.	Particulars	Details	
1.	Method of mining	**Iron ores**	**Bauxites**
2.	Mineral Reserve	50.67 million tonnes	1.57 million tonnes
3.	Proposed Production	3.35 MTPA	0.13 MTPA
4.	Proposed Life of the Mine	15 years	12 years
5.	Bench Height	8m	8m
6.	Working Bench Width:	12m	12m
7.	Ultimate Pit Slope	34	34
8.	Elevation Range	775-935 AMSL	
9.	General Ground Level	670 mRL	
10.	Water Table	Pre-Monsoon: 630mRL Post Monsoon: 625mRL	
11.	Ultimate Working Depth	769	
12.	Stripping Ratio Rom/ Waste (T: T)	1:0.75	1:0.80
13.	No of working days	306	306
14.	No of working shifts	01	01

b) **Blasting**: Loosening & breaking the in-situ strata/rock by blasting is a normal practice followed in mining activity. Blasting will be adopted for loosening of hard rock mass.

c) **Details of crushers/screen/beneficiation plant if any with capacity and numbers, water requirement for the project, plantation details, greenbelt details:** Existing 3 crushing units (2x 200 TPH and 1 x 250 TPH) and Screen (1 x300 TPH, 2 x 200 TPH and 2 x 250 TPH). Water requirement: 86 KLD.

d) Total 37051 tonnes of top soil have been generated from the inception of mine and 36895 tons of top soil is being used for plantation in different barren land like in orchard, avenue, and safety zone and in dump area and balance 156 tones / 120 m3 of top soil has been stacked in the lease area. During the proposed plan period there will be generation of 3623 cuM of top soil and will be used for plantation purpose.

e) Land use as per mining plan at the end of plan period and at conceptual stage:

Sl. No	Landuse Pattern	Existing Land use	Proposed Land use (after 5 years)
1	Area Under Mining	36.74	50.88
2	Top Soil stacking	0.02	0.05
3	OB Dump	10.05	16.26
4	Mineral Storage	28.63	31.89
5	Infrastructure	5.04	5.04
6	Road	3.92	4.52
7	Tailing Pond	0	0
8	ETP	0	0
9	Mineral Separation Plant	0	0
10	Others	2.20	3.12
	Sub Total	**86.6**	**111.76**
	Untouched	**101.668**	**76.508**
	Total	**188.268**	**188.268**

Post Mining Land Use Plan:

Sl. No.	Name of Mining features	Name of Post Mining Land Use	Area (ha)
1	Quarry	Reclamation /Rehabilitation	97.155
2	Overburden Dump	-do-	19.515
3	Infrastructure, processing plant & Magazine demolished area as well as topsoil & mineral stack removal area etc.	Rehabilitation (Plantation)	24.890
4	Road	---	5.750
5	Effluent Treatment Plant (Retaining wall, garland drain & settling tank)	---	1.654
6	Area for public purpose	Remains as such	1.228
7	Safety zone around magazine	Plantation	0.786
8	Safety zone of 7.5m width along M.L boundary	Plantation	6.412
9	Safety zone of 10m width along the public road	Avenue plantation	2.580
10	Orchard	Fruit bearing trees plantation	0.371
11	Area remains as such	---	27.927
---	**Total**	---	**188.268**

15. **Power Requirement & solar power details:** About 770 MWH per annum (~2.5 MW/day) power is being/will be required for illumination and other activities which are being/will be met from the Grid Corporation of Odisha Limited Electric sub-stations have been established as per need. In-house Solar power system of 125 KW has been established in the M.L area for lighting, weigh bridge operation etc.

16. **Solid waste generation:** During the proposed plan period 2286860.00 tons of waste will be generated. The waste generated will be dumped over the existing dump over an area of 9.40 Ha. The waste generated from the mining has been utilized for backfilling followed by reclamation of the mining void.

17. **Mitigation of solid waste produced:** Waste of quantity 16.50 million tonnes will be generated (0.35 Ton Waste per Ton of production), 7.01 million tonnes will be dumped by extending existing dump over an additional area of 11.623 ha., 1.13 million tonnes will be dumped over an area of 4.5 ha. Remaining waste (8.35 million tonnes) will be utilized for backfilling of 19.890 ha.

18. **Greenbelt Development:** Total greenbelt/plantation will be done on 151.709 ha. area, in which green belt will be done on 6.412 ha area on 7.5 m safety zone of lease boundary and 2.58 ha on safety zone of 10 m width along public road. 0.786 Ha. area will be covered under plantation at safety zone around magazine. Plantation will be done on 141.931 ha. The trees will be planted @1500 saplings per ha of land.

19. **Total Employment**:

S. No.	Category of Employment	Existing	Additional	Total (Proposed)
1.	Management & Supervisory	30	08	38
2.	Skilled	115	11	126
4.	Semi-Skilled	240	0	240
5.	Un-Skilled	66	8	74
6.	**Total**	**451**	**27**	**478**

20. **Project cost**:

Sl. No.	Activities	Total Cost	
		Capital	Recurring
1.	Mitigation Measures	1230.87	92.10
2.	Monitoring	78.55	28.00
3.	Others- Digital mapping of the entire lease area once in 5year	10.00	-
4.	EMP Budget for public hearing	138.00	29.00
	Total	**1457.42**	**149.10**

21. **Eligibility of the Project under 7(ii) (a) of EIA notification 2006 as per MoEF&CC, Govt. of India OM dated 11th April 2022:**

The MoEF&CC, Govt. of India vide Office Memorandum (O.M.) no. F. No. IA3-22/10/2022-IA.III [E177258] dated 11/4/2022 has issued guidelines for granting Environmental clearance under para 7(ii)(a) of EIA Notification 2006 for expansion upto 50%, within the existing premises / mining lease area, without additional land acquisition and Environmental Public Hearing. The compliance of the O.M. dated 11.04.2022 is as below:

Sl. No	Criteria for Projects to be Assessed under para 7 (ii) (a) of EIA Notification	Conditions fulfilled by Proposed Expansion project

Sl. No	Criteria for Projects to be Assessed under para 7 (ii) (a) of EIA Notification	Conditions fulfilled by Proposed Expansion project
1.	The project should have gone through public hearing process, at least once for the existing EC capacity on which expansion is being sought.	The last public hearing for the project was carried out on 29.09.2021 for KJST Iron Ore and Bauxite Mine (ML Area: 188.268 ha) with expansion in Iron Ore production Capacity from 2.0169 to 2.80 MTPA ROM (2.41 MTPA Iron Ore+0.39 MTPA mineral Reject), Iron Ore waste 1.50 MTPA, Top Soil 0.008 MTPA and Bauxite Production Capacity 0.13 MTPA (ROM), Bauxite waste 0.10 MTPA along with 3 crushing unit and 5 screening units at villages Kalmanga, Jaldihi, Sidimba and Tantigram, Tehsil: Koira, District: Sundergarh, Odisha.
2.	There should not be any change in category of the project due to proposed expansion	There is no change in lease area for this project. However as per MoEF&CC Notification S.O. 1886 (E) dated 20.04.2022 the major mineral mining lease <250.0 Ha will be considered under category B1 and appraised at SEIAA.
3.	There is no additional land acquisition of forest land diversion involved for the proposed expansion or there is no increase in lease area vis-à-vis the area mentioned in the EC based on the public hearing held earlier.	There is no proposal for additional land acquisition or forest land acquisition for the proposed expansion proposal
4.	The proposed expansion shall not be more than 50% of the production capacity as mentioned in the prior EC, issued based on public hearing held and the same shall be allowed in minimum three phases.	The proposal is for maximum expansion upto 20% i.e. enhancement in production of iron ore from 2.8 mTPA to 3.35 MTPA and no expansion in existing Bauxite production capacity of 0.13MTPA. The previous EC has been accorded for 2.8 mTPA production of Iron Ore and 0.13MTPA of Bauxite ore.
5.	Predicted environmental quality parameters arising out of proposed expansion/ modernization shall be within the prescribed norms and the same shall be maintained as per prescribed norm	The enhancement in production is due to increase in market demand. There will be proposal for additional use of water sprinklers and water fogging system to reduce the dust emission to remain within the standard.
6.	The proposed expansion should not result in reduction in the green belt area as stipulated in the earlier EC, or if the existing ratio of green belt is more than 33%, after expansion	The proposed expansion proposal will not involve in reduction of green belt area. The green belt area will remain as prescribed in the earlier EC letter.

Sl. No	Criteria for Projects to be Assessed under para 7 (ii) (a) of EIA Notification	Conditions fulfilled by Proposed Expansion project
	it should not reduce below 33%	

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

23. The SEAC in its meeting held on dated **10-07-2024** 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:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	The MoEF&CC, Govt. of India vide Office Memorandum (O.M.) no. F. No. IA3-22/10/2022-IA.III [E177258] dated 11/4/2022 has issued guidelines for granting Environmental clearance under para 7(ii)(a) of EIA Notification 2006 for expansion upto 50%, within the existing premises / mining lease area, without additional land acquisition and Environmental Public Hearing. The proponent has requested for 20% increase in Iron Ore production capacity without change in production capacity of Bauxite Ore under above OM of MoEF&CC, Govt. of India. The proponent has not submitted complete pointwise compliances (9 points) to the eligibility criteria of the Project under 7(ii) (a) of EIA notification 2006 as per MoEF&CC, Govt. of India OM dated 11th April 2022. The complete pointwise compliance to the above O.M. dated 11.04.2022 shall be submitted.	Point wise compliance to the OM dated 11.04.2022 is attached as **Annexure 1**	Annexure 1 is attached and complied.
2.	EIA/EMP report has not been prepared based on standard and specific ToRs. Revised EIA/EMP Report shall be prepared based on standard and specific ToRs and submitted.	This application is for Environment clearance under 7(ii). So the EIA report has been prepared based on standard ToR and the compliance to previous EC conditions. Revised EIA report is attached **Annexure 2**	Annexure 2 is attached as modified EIA report.
3.	Compliance to NEERI recommendations for the existing mining activities.	Compliance to NEERI Recommendation has been submitted at Regional Office, Ministry of	Annexure 3 is attached and complied.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		Environment Forest & Climate Change, Govt of India, Bhubaneswar along with half yearly EC condition compliance. Such Compliance report is annexed herewith as **Annexure 3**	
4.	Compliance to issues raised by the public during the last public hearing.	The last Public Hearing was held on dt.29.09.2021, at Community Centre of Sidimba village of Sundargarh District & was conducted by State Pollution Control Board with district administration. Some demands were raised by local public and the commitments & implements by the proponent is annexed herewith as **Annexure 4**	Annexure 4 is attached and complied.
5.	Forest clearance status of entire lease area including safety zone and copy of the Forest Clearance obtained for the mining lease.	Entire Mining Lease is over an area of 188.268 Ha. of Diverted Forest land. This land includes 9.778 Ha. of Safety Zone & Road of 1.228Ha. for Public use. Copy of the Forest clearance letter attached herewith as **Annexure 5**	Annexure 5 is attached and complied.
6.	An undertaking to complete all the proposed Programmes/activities as assured by the Project Proponent during public hearing within a timeline of 6 months.	Public hearing which was held on Dt.29.09.2021, at Community Centre of Sidimba Village of Sundargarh district of Odisha. The demands/issues raised by general public were satisfactorily completed. Here we are enclosing an undertaking as suggested by SEAC, such copy enclosed as **Annexure 6**	Annexure 6 is attached and complied.
7.	Any modification in Site Specific Conservation Plan if required w.r.t to enhanced production should be consulted and approved by concerned DFO.	Site specific Conservation plan was prepared for the entire lease area and approved by The PCCF & Chief Wild life Warden Odisha vide Order No.3966 on Dt:03.07.2009 With reference to the recommendations an amount of Rs.70.00 Lakh has been paid to Forest Department and implemented by The DFO, Bonai Forest Division of Odisha. As there is no change in area so no need for modification of Site specific Conservation plan. Copy attached as **Annexure 7**	Annexure 7 is attached and complied.
8.	Submit a brief note on the additional pollution load due to enhancement in production capacity and the additional Pollution Control measures adopted.	Brief writeup on the additional pollution load due to enhancement in production and additional pollution control measures is attached as **Annexure 8**	Annexure 8 is attached and complied.
9.	Detailed note on the greenbelt enhancement from 10acres to 55acres in layout.	The afforestation work within & outside of the mining Lease area is being carried out phase wise every year.	Annexure 9 is attached and complied.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		Native species including Sal have been planted. Outside of the lease area plantation was carried out in consultation with State Forest department. Distribution of Plant saplings to nearby villages and organizing Bana Mahotsava every year by this mine. Here are some facts that till date approximately 10 Ha area within & Outside of the lease area has been vegetated and at the end of conceptual period there will be around 50 Ha land within & Outside of the lease area will be covered under plantation. Some year wise plantation details are attached as **Annexure 9**	
10.	Note on additional water consumption and additional equipments setup due to proposed enhancement.	There will be no additional water requirement due to the proposed enhancement in production. However, due to installation of STP/ ETP there is the utilization of treated water for dust suppression and plantation purpose. Harvested rainwater is also being utilized for plantation and dust suppression purposes. Total water requirement will remain as 86 KLD. Details of water requirement is attached as **Annexure 10**	Annexure 10 is attached and complied.
11.	Submit a revised land-use breakup plan and modified mining plan.	Land use break up as per modified mining plan is attached as **Annexure 11.**	Annexure 11 is attached and complied.
12.	Details of the parking area available and no. of additional vehicles to be engaged w.r.t enhancement in production.	Parking Plaza over an area of 130 mtr Long X 70 mtr width (9100 sq.m) is established within mining lease area. Parking Plaza having facilities like wash room, bath room, rest room, toilets & canteen for drivers. This parking plaza can accommodate 100 trucks at a time. As per ground reality only those drivers use this place while there are some break downed trucks or those who are not given load beyond our permissible time otherwise in a continual process trucks approaches exit point within 20 minutes after formal entry. As per proposed expansion enhancement of 0.55 MTPA of iron ore only which will engage 61 no of Trucks with 12 wheel axel (Carrying-30 Tons of Ore) everyday. The facilities to accommodate more 61 no of trucks per	Annexure 12 is attached as Traffic Study Report duly vetted by KIIT, Bhubaneswar and complied.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		day are sufficient in this mine. **(Traffic Study Report duly vetted by KIIT, Bhubaneswar is enclosed herewith). Annexure 12.**	
13.	Submit the additional EMP cost for the Pollution Control measures due to enhancement in production.	The Capital EMP cost proposed for the project will be 1457.42 lakhs and Recurring cost will be 149.10 Lakhs. Detail break-up is attached herewith as **Annexure13.**	Annexure 13 is attached and complied
14.	Brief note on the life of settling pond provided for surface runoff management.	Ten nos of settling ponds have been developed within the mine lease area followed by a 100 meter long and 15 meter tall concrete check dam. Life of these settling ponds will be till end of the mining lease. (Till-2037)	Complied
15.	Submit the Certified Compliance report for the existing EC conditions.	With reference to our half yearly compliance to EC Conditions in December, 2023 Sri Sandeep Nandi, Scientist-B of Regional Office, Ministry of Environment, Forest & Climate Change, Govt of India, Bhubaneswar monitored KJST Iron Manganese & Bauxite Mines on 19.03.2024 and he submitted certified compliance report to competent authorities of Ministry of Environment, Forest & Climate Change, Govt of India, New-Delhi. Copy of certified compliance report is attached as **Annexure -14.**	Annexure 14 is attached and complied
16.	Brief note on the amount spent and action taken w.r.t to the issues raised during public hearing and remaining programmes to be completed in future.	The budget of Rs **138.0** Lakhs (With reference to last Public hearing) to address the Concerns raised by the public including in the public hearing to be Completed within 3 years from the date of start of mining operations. Project proponent complied with all action plans made for public hearing concerns. In a budget of Rs 138 Lakh to address the concerns raised by the public during public hearing, the following development work has been undertaken and completed by project proponent in the nearby villages under the Peripheral Development and welfare activities. The details of the work done at nearby villages is mention below :- A. A community Hall with a carpet area of 1300 Sq.ft in village	complied

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		Tantigram for utilization of villager has been constructed at a cost of - **Rs 40 Lakh**. B. A stage & a gallery of football field in the village Jaldihi has been constructed to encourage the sports activities amongst village youth at cost of **Rs 22 Lakh.** **C.** Pipe line connection at village Jaldihi to supply the drinking water to villagers has been completed at a cost of - **Rs 2 Lakh** **D.** An overhead water Tank at Gopopur Sahi village near Koira Township has been Constructed to facilitate drinking water supply at a cost of - **Rs 16 Lakh** **E.** A water Tank at village Sidimba and a dug well at village kalmanga as well as a pond has been constructed for the purpose of drinking water & bathing facilitate of the villagers at a cost- **Rs 5 Lakh** **F.** Financial assistance is being given to the old age persons and to the family members in case of death of any family members by the mine up to 2023-24 -- **Rs. 20 Lakh** G. Electrification of Tinto village by installation of solar system for the Cost of- **Rs. 15 Lakh** **TOTAL – Rs 120 Lakh** Further the project proponent has also taken steps to complete the work regarding, Boundary wall at Teherei, Gosala work is completed. Development of Sunaghati picnic spot **(with a proposed budget of Rs18 Lakh)** as demanded by public is under progress as such place is falling under forest area so clearance from forest department is needed. All relevant applications were submitted by B.D.O, Koira before the DFO, Bonai for necessary forest clearance of that area.	
17.	Justify why Effluent Monitoring System as per the previous EC conditions is not applicable.	There is no source of effluent generation due to the Iron ore and bauxite ore mines. Water requirement in the mining is only for dust	Annexure 15 is attached and complied.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		suppression, drinking, domestic and green belt development. No water is required for the mining operation. The only source of wastewater generation is domestic wastewater which is being treated through 30 KLD STP. The treated STP water is being utilized for green belt development. The treated water from the STP is being regularly monitored through NABL accredited Laboratory for its suitability for plantation purpose. Copy of test report attached **Annexure 15.** As there is no continuous source of effluent generation from the mining operation there is no requirement of installation of continuous effluent monitoring system in the mines.	

Considering the information furnished and the presentation made by the consultant **M/s Kalyani Laboratories Pvt Ltd., Bhubaneswar** along with the project proponent, the SEAC recommended for grant of Environmental Clearance only for 20% increase in production capacity (i.e. from 2.80 MTPA to 3.35 MTPA) in first phase under 7(ii) (a) of EIA notification 2006 as per MoEF&CC, Govt. of India OM dated 11th April 2022 with stipulated conditions as per **Annexure – C** and following specific conditions.

i) The project proponent needs to preserve or utilize the ore and fine's containing Fe between 35-45%, following IBM guidelines.

ii) The project proponent shall maintain adequate greenbelt in the lease area.

iii) OB dump sites shall be managed properly as proposed.

iv) The additional fines generated due to proposed enhancement shall be managed properly.

v) Proper Air Pollution Control measures shall be provided to control dust emission and local dust generation.

vi) The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.

vii) Traffic management shall be done as per recommendation of Traffic Management Study Report duly vetted by institute of repute.

viii) As a part of six-monthly compliance, the PP shall submit the status of Tailing Pond and its annual make-up to ascertain its capacity to take care of expansion in production including

mineralogical & chemical analysis of excavated ore, dump materials and rejects. Also, actual layout after expansion may be submitted as a part of six-monthly compliance to the SEIAA, Odisha and Regional Office, MoEF&CC, Govt. of India, Bhubaneswar.

ix) Adequate measures shall be adopted for management of noise, vibration and fly rocks based on scientific studies from an institute of repute.

x) Bench and dump slopes are to be designed and maintained based on scientific studies so that their failure is avoided.

ITEM NO. 05

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S ANSIKA APEX SERVICES PVT. LTD FOR COMMON BIO-MEDICAL WASTE TREATMENT FACILITY PROJECT LOCATED AT MOUZA - DUKHIGUDA, PS - PAPODAHANDI, TEHSIL - TINTULIKHUNTI, DISTRICT - NABARANGPUR OF SRI CHITA RANJAN DASH - 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 Ansika Apex Services Pvt. Ltd for Common Bio-Medical Waste Treatment Facility Project located at Mouza - Dukhiguda, Ps - Papodahandi, Tehsil - Tintulikhunti, District - Nabarangpur of Sri Chita Ranjan Dash.
3. **Category**: As per the EIA notification 2006, and its subsequent amendments, proposed project falls in category B under schedule of Item 7(da) - Bio-Medical Waste Treatment Facilities.
4. **Location and Connectivity** – The proposed project is located Khata no. 224/161, Plot No. 10 & 12, Mouza - Dukhiguda, PS - Papodahandi, Tehsil - Tintulikhunti in District - Nabrangpur, Odisha bounded by Latitude -19°20'6.07"N and Longitude - 82°36'41.26"E. Nearest road is NH- 26 at 7.3 km in NW direction. Nearest Railway Station is Khadapa RS Railway Station at 42 km in SSW direction. Nearest airport is Jeypore Airport at 50 km towards S direction. Nearest Habitation is Sonuguda Village at 1 km in W direction. Nearest Wildlife Sanctuary is – Ambapani Wildlife Sanctuary at approx. 30 Km in N Direction. Nearest Water Body is Guntat River at 2.9 km in SE direction. Letter Of Intent was granted vide letter no 8722/IV(B)SM-53/2021 dtd 28.10.2021 and name of Lease Holder is M/s Raga Tradecon Pvt. Ltd.
5. **Land use details:**

S. No.	Facilities	Area (sqm)
1	Plant Facilities (Waste storage rooms, autoclave, incinerator, shredder etc.)	1066
2	Administrative and auxiliary facilities	554
3	Rain Water Harvesting Pit	46
4	ETP	464

5	Vehicle Wash	87
6	Green Belt area	1727.95
7	Parking	811
8	Internal roads	2398
9	Miscellaneous	438
10	Open Area	241
11	Staff Quarters	139.35
	Total Area	**7972.30**

6. **Proposed Units & Total Capacity:**

   Autoclave – 0.50 m3 (2 Nos, 1 operational & 1 standby)

   Shredder – 100 kg/hr (2 Nos, 1 operational and 1 standby)

   Rotary Kiln- 200 kg/hr (1 no.)

   Incinerator – 200 kg/hr (No.)

   ETP – 10 KLD

7. **Waste generation and management**: Waste generation includes Ash of 100-150 kg/day and Residue of 10-20 kg/day. Ash residue from high temperature incineration and other material residues from the process shall be collected into containers / bags and shall be stored at temporary ash storage shed and shall be disposed into the secured landfill periodically after sufficient accumulation. All hazardous waste shall be strictly disposed as per Hazardous & Other Waste (Management& Trans-boundary movement) Rule, 2016.
8. **Baseline study**: Baseline study has been conducted during time period- March'2024-May'2024.
9. **Total water requirement and wastewater management**: Total 10 KLD of water is required for the proposed project and waste water will be treated in ETP of 10 KLD capacity.
10. **Power Requirement and solar power details:** Total power requirement for the project is 40 kVA.
11. **Rainwater Harvesting Details –** Rainwater harvesting pits covering an area of 46 sqm are provided.
12. **Green belt Development:** 1727.95 Ha of land and 100 saplings are provided as green belt cover.
13. **Employment:** 30 (skilled & unskilled) nos of persons are proposed for the employment for the project.
14. **Project cost:** Total cost of the project is 1.7 Crores.

15. **Environment Consultant:** The Environment consultant **M/s Grass Roots Research and Creation India (P) Ltd.** along with the proponent made a presentation on the proposal before the Committee on 18.05.2024.

16. The SEAC in its meeting **18-05-2024** decided to take decision on the proposal after receipt of the following. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Details of renewable/ solar energy to be included in EIA report.	Solar energy will be utilized for street lighting, solar blinkers and signage to reduce electricity consumption.	To be included in EIA Report.
2.	Precautionary measures for medical waste/ radioactive waste.	Precautionary measures will be provided in EIA/EMP report	To be included in EIA Report.
3.	Traffic study report vetted by reputed institute.	Traffic study report is attached as **Annexure-I**	Traffic study report is vetted by School of Civil Engineering, KIIT Deemed University is attached as Annexure 1
4.	Layout for storage facilities of different types of medical wastes along with precautionary measures.	Storage facilities marked on layout plan is attached as **Annexure-II.** As a precautionary measure, 1-day additional storage facility will be provided within site for emergency use in case Incinerator fails/break down.	Annexure-II is attached and complied.
5.	Water quality analysis report of final treated water.	Water quality analysis report of final treated water will be submitted once project is operational.	PP intimated that will submit Water quality analysis report of final treated water after the project is operational.
6.	Detailed arrangement for storm water discharge into the drainage.	Storm water will be discharged to the nearby drain. Detailed Storm water drainage plan with outfall point will be submitted with FEIA/EMP report.	Detailed Storm water drainage plan with outfall point will be included in Final EIA/EMP report
7.	Note on disaster management system.	Disaster Management plan is attached as **Annexure-III.**	Annexure III is attached and complied.
8.	The proposed site is located within 75 K.M. from another existing CBWTF. As per CPCB guidelines, this proposed CBWTF does not met the siting criteria. The PP has to clarify as to why this proposal shall not be rejected due to non-confirm to the siting criteria. A detailed writeup	Clarification regarding another CBWTF within 75 km radius will be submitted before FEIA/EMP report.	Clarification regarding another CBWTF within 75 km radius will be submitted during Final EIA/EMP report.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	in this regard shall be submitted.		

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Grass Roots Research and Creation India (P) Ltd, Noida**, the SEAC prescribed the following specific ToRs in addition to standard ToRs as per **Annexure – D** for conducting detailed EIA study

i) The proposed site is located within 75 K.M. from another existing CBWTF. As per CPCB guidelines, this proposed CBWTF does not met the siting criteria. The PP has to clarify as to why this proposal shall not be rejected due to non-confirm to the siting criteria. A detailed writeup in this regard shall be submitted.

ii) Detailed arrangement for storm water discharge into the drainage.

iii) Precautions to be taken for collection of Bio Medical and radioactive wastes.

iv) Details of renewable/ solar energy to be included in EIA report.

v) Details of equipments and their capacity to be installed in Project.

vi) Compressive and clear layout w.r.t environment settings showing Plant equipment arrangement, showing all process, materials storage, and handling units.

vii) Supporting documents showing concerned authority/body/organisation has allotted the unit to collect biomedical wastes from prescribe areas.

viii) Undertaking/Declaration by Project Proponent that they will not handle the radioactive wastes.

ix) Mitigation measures to be undertaken to protect the nearest water body and people living in nearest villages.

x) Provision for analysis of Mercury content in raw materials collected and disposal method for Mercury wastes.

xi) Permission copy from concerned authority for usage of water.

xii) Detailed write up on the handling of bio medical waste (segregation, process followed and disposal of waste).

xiii) Precautionary measures to be undertaken to prevent contamination of soil and water from the raw material storage area due to leaching.

xiv) Brief write up on surface run off management with drainage map.

xv) Submit the water balance break-up and where the cooling water is to be used.

xvi) Submit the coverage area details.

xvii) SOP for Biomedical waste management for workers involved in segregation and waste handling.

xviii) Regarding disposal of the incinerator ash submit supporting documents like MoU with private agencies along with guidelines suggested for its disposal.

xix) The ETP should have provision to take care of wastewater being contaminated with biomedical wastes.

xx) Disaster Management plan in case of floods or cyclones.

xxi) Transportation route chart to be submitted. Provision to be kept for GPS tracker in vehicles used for transportation.

xxii) Permission from the panchayat and ROW documents for connecting land from project site to nearest approach road through the nearby village area.

xxiii) Details of amount of waste to be generated from the hospitals on the per day basis rather than calculating on number of beds.

xxiv) Aerial distance certificate from State Pollution Control Board, Odisha from the nearby Bio-Medical Waste Treatment Facilities.

xxv) Precautionary measures to be undertaken to avoid contamination of wastes or due to surface runoff from project site to the nearby water reservoir.

xxvi) Standard Operating Protocol starting from collection point of waste generation/raw material, segregation, transportation, treatment and disposal of waste generated from plant.

xxvii) The baseline monitoring should also include biological parameters and baseline study should also cover the monsoon period.

xxviii) The storage sheds provided for the biomedical waste should be covered.

xxix) Provide a buffer zone of 5km around the proposed site.

xxx) A write up on the amount of segregated waste to be handled at the project site monthly and annually.

xxxi) Avoid using transport route passing through the village.

xxxii) 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.

xxxiii) Area details to be cover for collection of waste materials/raw materials.

xxxiv) Agreement papers or MoU with Common Hazardous Waste Treatment and Disposal Facility for disposal of waste generated and its management.

xxxv) Category wise list of wastes to be handled.

xxxvi) Layout plan of drainage plan of the site showing the discharge point of this drain to the nearest public drain for safe discharge of flood water from the site during rain fall along with excess treated water if any. Necessary permission from the competent authorities for such discharges also needs to be obtained.

xxxvii) PP to install few water and air monitoring instruments and implementation schedules with records for periodic compliance.

xxxviii) The proposed green belt area appears to be less. The proponent shall increase the greenbelt area upto 33% of total area and detailed proposal to be submitted.

xxxix) It is mentioned for Green Belt Development as "1727.95 Ha of land and 100 saplings are provided as green belt cover". 100 numbers of saplings seems to be very less for land of1727.95Ha.The proponent has to clarify on this point.

ITEM NO. 06

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S QUALITY CARE INDIA LIMITED FOR EXPANSION OF MULTI-SPECIALTY HOSPITAL BUILDING PROJECT AND INITIALLY THE APPROVED BUILT-UP AREA WAS 19,901.90 M^2 AT MOUZA - CHANDRASHEKARPUR, TEHSIL - BHUBANESHWAR, DISTRICT-KHURDHA OF SRI N SHIVA KUMAR - EC

1. This proposal is for Environmental Clearance of M/s Quality Care India Limited for Expansion of Multi-Specialty Hospital Building Project and initially the approved Built-up area was 19,901.90 m^2 at Mouza - Chandrashekarpur, Tehsil-Bhubaneshwar, District - Khurdha of Sri N Shiva Kumar.
2. **Category**: This project falls under Category "B", Project or Activity 8(a) - Building and Construction projects as per EIA Notification dated 14th Sept, 2006 as its amendments.
3. **Location and connectivity**: The proposed project is located at Plot No. 324 (Pt), Khata no. 619, Near Prachi Enclave, Mouza Chandrashekharpur, Tehsil- Bhubaneshwar, District-Khordha, Odisha by M/s Quality Care India Limited. The project is bounded by geo-coordinates: Latitude: 20°19'16.43"N; Longitude: 85°48'46.37"E bearing Toposheet no F45T15. The land use of the project is for hospital purpose. The nearest highway NH-16 is approx. 3.1 km (SE), NH-316A is approx. 9.4 km (ENE) and NH-316 is approx. 6.5 km (ESE). The nearest railway stations: East coast & Mancheswar Railway Station are about 1.5 km (E) and 3.3km (E) away from the project site. The nearest Airport is Biju Patnaik International Airport which is at a distance of approx. 6 km (S) away from the project site.
4. The site is coming under Bhubaneshwar Development Authority.
5. The total plot area is 10117.05sq.mt. / 2.49 Ac. / 1.011 ha. with total built-up area is 5,24,342.6 sq.mt.
6. **The Building Area Details of the Project in tabulated form:**

Area statement

S. No.	Particulars	Existing area(m^2)	Proposed Area(m^2)	Total Area (existing part+ proposed area) (m^2)
1.	Total Plot Area (as per Document)	10,117.05 (2.49 acre)		
2.	Net Plot Area (as per Possession)	9615.60		
3.	Permissible Ground Coverage	2247.08	1599.16	3846.24
4.	Proposed Ground Coverage	2247.08	1598.79	3845.87
5.	**Total Permissible FAR (@2.39%)**	**22,953.38**		
	• Base FAR (@2.00)	19,231.20		
	• Purchasable FAR (@0.40)	3722.18		

S. No.	Particulars	Existing area(m^2)	Proposed Area(m^2)	Total Area (existing part+ proposed area) (m^2)
6.	Proposed/Achieved FAR	**14,088.39 (@1.46)**	**8,864.99 (0.921)**	**22,953.38 (@2.39)**
7.	Non-FAR Area	2,983.98	5,574.03	8,558.01
8.	**Total Built Up Area (6+7)**	**17,072.37**	**14,439.02**	**31,511.39**
9.	Green area	1923.05 (@ 19.99% of the net plot area)		1923.05
10.	Maximum Building Height (m)	29.35	36.25	36.25

7. **Water requirement**: Fresh water requirement for the proposed part is 140 KLD which will be sourced from City Supply & Borewell.

8. **Waste water generation and management:** It is expected that total wastewater (existing + expansion) generated from the project will be approx. 197 KLD. The domestic sewage will be treated in onsite STP capacity of 285 KLD which will be reused for Flushing, Horticulture, HVAC Cooling, etc. The total wastewater or trade effluent (existing +expansion) generated from OPD, IPD, OT, Blood bank, labs & laundry will be treated in onsite ETP of 63 KLD capacity. Treated effluent from ETP will be further discharged into sewer line. It is expected that wastewater (domestic sewage) generated from the project will be approx. 85 KLD (@ 80% of fresh water, 100 % flushing water). The domestic sewage will be treated in onsite STP capacity of 105 KLD generating 77 KLD of recoverable water from STP which will be reused for Flushing, Horticulture, HVAC Cooling, etc. The wastewater (trade effluent) generated from OPD, IPD, OT, Blood bank, labs & laundry will be approx. 19 KLD, which will be treated in onsite ETP of 23 KLD capacity. Treated effluent from ETP will be further discharged into sewer line.

9. **Details of STP/ETP capacity:** 285 KLD (Total = Existing + expansion) of STP and 63 KLD (Total = Existing + expansion) of ETP is proposed for the project. Water will be extracted for City supply & Borewell and the permission for the same is in progress.

10. **Power requirement**: The total maximum demand is estimated as 1800 kVA (Total: Existing + expansion) that will be sourced State Electricity Board. During operation phase, there will be 4 nos. of 1800kVA capacity which includes (2 x 750 +2 x 1500 kVA) LSD DG sets for power back up. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion. The proposed Solar PV generation capacity of 5% of total electrical demand load of project. The total demand load of the project is 1800 kVA.

11. **Rainwater Harvesting**: The rain water harvesting proposed is 289.034 m^3 and no. of pits/tanks proposed is 4 pits.

12. **Parking Requirement**: Total parking area provided is 11,139.68 m^2 [Total (Existing + Proposed). Location of parking area to be provided is Basement Parking.

13. **Firefighting Installations**: It includes wet riser, Auxiliaries, hydrants Main (MSC class pipes) with Hydrant accessories like Fire Service Inlet, Fire Brigade Breaching (Siamese) Connections, Automatic Sprinkler system, hydraulically operated Deluge system (Drencher system), Fire

extinguishers, Fire Buckets, Transformer Room, LT Panel Room, Underground and Terrace tanks, pumps etc.

14. **Green Belt Development**: Green belt will be developed over an area of 1923.05 sqm which is 19.9% of the total plot area. **Total no. of plants to be planted are** 120 trees out of 40 no. of trees are already planted and remaining 80 no. of trees need to be planted.

15. **Solid Waste Management**: During the operation phase, approx. 533 kg/day of total (existing +expansion) solid waste and 138 kg/day of total (existing + expansion) Biomedical Waste will be generated. Following arrangements will be made at the site in accordance with Solid Waste Management Rules, 2016.

Collection and Segregation of waste

i) A door-to-door collection system will be provided for collection of domestic waste in colored bins from household units.

ii) The local vendors will be hired to provide separate-colored bins for dry recyclable and Bio-Degradable waste.

iii) For commercial waste collection, adequate number of colored bins (Green and Blue & dark grey bins – separate for Bio-degradable and non-Bio-degradable) are proposed to be provided at the strategic locations of the commercial area.

iv) Litter bin will also be provided in open areas like parks etc.

16. **Waste Treatment: Bio-Degradable waste** will be disposed through organic waste converter. STP sludge is proposed to be used for horticultural purposes as manure. Horticultural Waste is proposed to be composted and used for gardening. The cropped grass will be spread on green area. It will act as manure after decomposition. Recyclable waste like paper, plastic, metal etc. will be disposed through local approved recyclers. Recyclable and non-recyclable waste will be disposed through a local agency.

17. **Project Cost**: The estimated project cost is 205 Crores and cost for EMP is 153.75 Lakhs as Capital Cost and 47.43 Lakhs as Recurring cost.

18. **Environment Consultant**: The Environment consultant **M/s Grass Roots Research & Creation India (P) Ltd., Noida** along with the proponent made a presentation on the proposal before the Committee on 04.06.2024.

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

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

a) The project is falling within the ESZ of Chandaka Dampara Wildlife sanctuary. Submit the application applied for NOC.

b) Revisit the calculation of parking area and water consumption of patients, attendees and visitors based on realistic/actual figure with respect to present population and future population after expansion of the project.

c) Copy of NOC/permission from concerned authority for discharge of additional wastewater to nearest drain.

d) Increase the greenbelt upto 20% of total plot area.

e) Copy of all statutory clearances obtained along with BDA approval.

f) Provision for separate bin for collection of radioactive wastes, separate disposal method to be followed as per the guidelines along with permission from concerned authority for disposal of radioactive wastes.

g) Submit Water balance separately for radioactive department.

h) Comparative statement for water demand, wastewater generation and population present and future expansion.

i) Provision should be kept for Quality check for discharge of effluents from ETP before final discharge.

j) The green area should be minimum 20% of the land area of the project site. Total ground coverage area including internal roads needs to be 40% maximum of the land area of the project site.

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.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	The project is falling within the ESZ of Chandaka Dampara Wildlife sanctuary. Submit the application applied for NOC.	As per the NOC received from DFO, Chandaka Wildlife Division, the project site is not coming within the ESZ of Chandaka Dampara WLS. Therefore, NBWL clearance is not required. Copy of DFO NOC is enclosed as **Annexure-I.**	Annexure I is attached and complied.
2.	Revisit the calculation of parking area and water consumption of patients, attendees and visitors based on realistic/actual figure with respect to present population and future population after expansion of the project.	The population, water consumption and parking details are as per norms which are realistic. Future population after expansion has also been calculated as per norms. Details enclosed as **Annexure –II.**	Parking - 11,139.68 m^2 (Existing - 5635.73 m^2 + Proposed - 5503.95 m^2)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
3.	Copy of NOC/permission from concerned authority for discharge of additional wastewater to nearest drain.	The Sewerage connection and discharge permission is enclosed as **Annexure-III (a).** The drainage plan showing discharge location is enclosed as **Annexure- III (b).**	**Annexure-III (a) is attached vide letter no 11902 dtd 06.03.2014** There is no recent letter for disposal of additional waste water.
4.	Increase the greenbelt upto 20% of total plot area.	As per the suggestion of SEAC, we have increased the green area to 1923.12m^2 (i.e., 20% of the net plot area). The landscape plan is enclosed as **Annexure-IV.**	**Annexure - IV is attached.**
5.	Copy of all statutory clearances obtained along with BDA approval.	The Copy of all statutory details attached as follows: • Drainage NOC for Additional water: **Annexure- III(a)** • The water supply permission :**Annexure-V** • BDA & BMC Approval: **Annexure-VI**	Annexure-III (a), Annexure-V and Annexure-VI is attached and complied.
6.	Provision for separate bin for collection of radioactive wastes, separate disposal method to be followed as per the guidelines along with permission from concerned authority for disposal of radioactive wastes.	**For Solid waste:** As suggested we will provide separate Bin for collection of Radioactive waste. As per CPCB Guidelines, Health Care Facilities generating radionuclides waste from treatment of Cancer patients and end-of-life equipment containing radio radionuclides will obtain authorization from AERB for its disposal. We will follow the provisions of Atomic Energy (safe Disposal of Radioactive Wastes) Rules, 1987 and Obtain an authorization from the competent authority.	PP has not yet obtained authorization from the competent authority for radioactive waste disposal.
7.	Submit Water balance separately for radioactive department.	**Water Balance:** We have already considered the effluent from OT, Labs and IPD in the ETP water cycle.	Not Submitted.
8.	Comparative statement for water demand, wastewater generation and population present and future expansion.	The Comparative Statement of Water Demand, Wastewater and Population for Present and future expansion is presented in **Annexure- II.**	Annexure- II is attached and complied.
9.	Provision should be kept for Quality check for discharge of effluents from ETP before final	As suggested, we will keep the provision for quality check for discharge of effluents from ETP	The PP has assured to comply to the given

<table>
<tr><th>Sl. No.</th><th>Information Sought by SEAC</th><th>Compliance furnished by the proponent</th><th>Views of SEAC</th></tr>
<tr><td></td><td>discharge.</td><td>before final discharge.</td><td>condition.</td></tr>
<tr><td>10.</td><td>The green area should be minimum 20% of the land area of the project site. Total ground coverage area including internal roads needs to be 40% maximum of the land area of the project site.</td><td>As per suggestion of SEAC, we have increased the green area to 1923.12m^2 (i.e 20% of the net plot area).
The landscape plan is enclosed as Annexure-IV. As suggested we have increased the ground coverage from 3845.87 m2 (39.99% of Net plot area) to 3,846.24m2 (40% of Net plot area).</td><td>Annexure-IV is attached and complied.
As per suggestion of SEAC, PP have increased the green area to 1923.12m^2 (i.e., 20% of the net plot area).</td></tr>
<tr><td colspan="4">Site Visit Point:</td></tr>
<tr><td>11.</td><td>Environmental settings of the project site.</td><td>The project site is devoid of any trees.
10 km study area:
Chandaka Dampara WLS is 0.23 km (W) away and project site lies in the ESZ of Chandaka Dampara Wildlife Sanctuary. We have applied NBWL for the same.
Nandankanan Wildlife Sanctuary is 7.15 km (N) away and the project site is outside the ESZ Zone.
Following forests and rivers are present in study area –
<table>
<tr><th colspan="3">Forests</th></tr>
<tr><th>S.No.</th><th>Forests</th><th>Distance and direction</th></tr>
<tr><td>1.</td><td>Ghatika PF</td><td>5.4 km (SW) from the project site</td></tr>
<tr><td>2.</td><td>Medhashala RF</td><td>9.4 km (WSW) from the project site</td></tr>
</table>
<table>
<tr><th colspan="3">Rivers</th></tr>
<tr><th>S.No.</th><th>Rivers</th><th>Distance and direction</th></tr>
<tr><td>1.</td><td>Bhargavi River</td><td>7.5Km (ESE) of project site.</td></tr>
<tr><td>2.</td><td>Kuakhai</td><td>5 Km (E)</td></tr>
</table></td><td>NBWL has been applied as the project site lies in ESZ of Chandaka Dampara Wildlife Sanctuary.</td></tr>
</table>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		River of project site. 3. Daya canal 3.5 Km (E) of project site. 4. Serua River 12.7 km (NE) of project site 5. Kushabhadra Nadi 8 km (ESE) of project site 6. Mahanadi River 14.1 km (NW) of project site 7. Deras Dam/ Reservoir 12.9 km (W) of project site 8. Jhumka Dam / Reservoir 10.5 km (W) of project site 9. Kanjia Lake 8.6 km (N) of project site 10. Puri Main Canal 6.7 km (E) of project site	
12.	Extent of construction activity and operational status of all the units.	The built-up area of existing Hospital is 17,072.37m^2 which is in operation phase. There is no construction started in the expansion part of the project.	Complied.
13.	Road connectivity to the project site.	The project site is well connected through the Care Hospital Road which is adjacent to the site in the North direction and nearest Highway NH-16 which is approx. 3.1 km (SE) away.	Complied.
14.	Drainage network at the site.	The Sewerage connection and discharge permission is enclosed as **Annexure-III (a).** The drainage plan showing discharge location is enclosed as **Annexure- III (b).**	**Annexure-III (a) is attached vide letter no 11902 dtd 06.03.2014** There is no recent letter for disposal

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
			of additional waste water.
15.	Greenbelt development in the existing plant.	The Landscape plan showing green area at the project site is enclosed as **Annexure- IV.** Evergreen tall and ornamental trees have been planted at site. No. of trees required = 1 tree/80 sq. m. of plot area =9615.60/80 = 120 Nos. Total no. of trees planted at site = 40 nos. Balance no. of trees to be planted = 80 nos. We will plant balance trees at the project site.	Annexure- IV is attached and Complied.
16.	Solid waste management practice of the existing plant.	We have obtained permission for Biomedical wastes and Hazardous waste disposal. Copy of the same is enclosed as **Annexure- VII.**	Annexure- VII is attached and Complied.
17.	Vacant land available.	No	Complied
18.	Any other issues including local issues.	None	Complied

21. The proposed site was visited by the sub-committee of SEAC on **06.07.2024**. Following are the observations of the sub-committee:

a) The proposed expansion was explained by the Architect in presence of PP and Consultant.

b) The site is located at the back side of the existing building where, they propose to construct two buildings - One Cancer block and another multi-level parking.

c) There has been no construction in the back side of site.

d) The PP was asked to submit the following considering the total hospital (including proposed and existing):

i) Permission from the authority to allow discharge of excess treated water and storm water (If not obtained, they need to get it before construction work) to the existing drain at front.

ii) Take up plantation (green belt) to plus 20% of the total hospital area. Quite a good number of plants already planted.

iii) Parking to be considered for about 40% as several vehicles are parked outside. A revised lay out plan about parking of vehicles (for hospital staff and for patients, visitors etc.) to be submitted. If required one more floor in Parking building to be considered.

iv) A comparative table of environmental settings/like- green belt, STP, Excess treated water, parking area (for existing building and after expansion) to be submitted.

v) Green belt, solar energy production and stack height etc. to be as per norm.

a) All other points asked during presentation to be complied along with statutory clearances.

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

i) A comparative table of environmental settings/like- green belt, STP, Excess treated water, parking area (for existing building and after expansion) to be submitted.

ii) Parking to be considered for about 40% as several vehicles are parked outside. A revised lay out plan about parking of vehicles (for hospital staff and for patients, visitors etc.) to be submitted. If required one more floor in Parking building to be considered.

iii) Submit Water balance separately for radioactive department indicating the proposed method of disposal of the treated water. Relevant permission from the Atomic Energy Regulatory Board for the operation of the radio isotope / radio pharmaceutical department of the hospital also to be submitted.

iv) Copy of drainage permission as per expansion as old drainage permission is enclosed which must be without the present needs.

v) As per the NoC submitted from concerned DFO, the project is outside ESZ of sanctuary. But as per the clarification given to site visit report, NBWL clearance is applied as project in side ESZ of sanctuary. This is contradictory and need to be clarified.

ITEM NO. 07

PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S ANGUL HOSPITAL AND RESEARCH FOUNDATION FOR CONSTRUCTION OF 200 BEDDED MULTI SPECIALTY HOSPITAL TOTAL BUILD UP AREA- 33343.30 SQ.M AT: KANGULA, TAHASIL- ANUGUL, DIST: ANUGUL OF SRI PRADIPTA MOHAPATRA - EC

1. This proposal is for Environmental Clearance of M/s Angul Hospital and Research Foundation for Construction of 200 Bedded Multi specialty Hospital Total Build up area - 33343.30 Sq.m at: Kangula, Tahasil - Anugul, Dist: Anugul of Sri Pradipta Mohapatra.
2. **Category**: As per the EIA notification 2006, and its subsequent amendments, proposed project falls in category B under schedule of Item 8(b) - Township and Area Development Projects.
3. **Location and connectivity:** The proposed project is located at plot no. 12122/17435 under holding No – 1787/3310 of village Kangula of Angul Tahasil, District Angul. The total plot area meant for construction of 200 bedded hospitals will be established over an area of 4.000 Acres. The Campus is at 8.91 km form Angul Railway station and 93.70 km from Biju Pattanaik International Airport, Bhubaneswar Topo Sheet No. – F45T1. Kissam – Gharabari.
4. The site is coming under Talcher Angul Meramundali Authority, Angul.
5. The total plot area is 16233.41 Sq.mt. /1.623341 Ha. /4.00 Ac. With total Built-up Area 33386.29 sq.mt.
6. **The Building Area Details of the project in tabulation form:**

PLOT AREA	16233.41 sqm	174736.40 sqft.	
	BUILT UP AREA	**F.A.R AREA**	**PARKING**
HOSPITAL			
BASEMENT FLOOR	4872.09 sqm	0.00 sqm	3809.00 sqm

PLOT AREA	16233.41 sqm	174736.40 sqft.	
	BUILT UP AREA	**F.A.R AREA**	**PARKING**
GROUND FLOOR	4140.01 sqm	4055.13 sqm	0 sqm
FIRST FLOOR	3436.96 sqm	3309.70 sqm	0 sqm
SECOND FLOOR	3533.90 sqm	3426.04 sqm	0 sqm
THIRD FLOOR	3569.34 sqm	3464.73 sqm	0 sqm
CUMILATIVE TOTAL	**19552.30 sqm**	**14255.60 sqm**	**3809.00 sqm**
HOSTEL			
GROUND/STILT FLOOR	1345.25 sqm	261.33 sqm	1062.59 sqm
FIRST FLOOR	1249.76 sqm	1209.12 sqm	0 sqm
SECOND FLOOR	1249.76 sqm	1209.12 sqm	0 sqm
THIRD FLOOR	1249.76 sqm	1209.12 sqm	0 sqm
FOURTH FLOOR	1249.76 sqm	1209.12 sqm	0 sqm
FIFTH FLOOR	1249.76 sqm	1209.12 sqm	0 sqm
SIXTH FLOOR	1249.76 sqm	1209.12 sqm	0 sqm
CUMILATIVE TOTAL	**8843.81 sqm**	**7516.050 sqm**	**1062.59 sqm**
	BUILT UP AREA	**FAR AREA**	**PARKING**
HOSPITAL	19552.30 sqm	14255.60 sqm	3809.00 sqm
HOSTEL	8843.81 sqm	7516.05 sqm	1062.59 sqm
SECURITY, ICT, PUBLIC	75.60 sqm	65.60 sqm	N/A
TOTAL	**28471.71 sqm**	**21837.25 sqm**	**4871.59 qm**

7. **Water Requirement:** During the operation phase total water requirement will be 1,23,000 litres per day. Water will be sourced from ground water through bore. Application has been made to CGWA for withdrawal of ground water. Out of the total water requirement of 123 KLD, 71.34 KLD (58%) of fresh water, which will be met through bore-well for drinking, washing and other domestic purpose. 51.56 KLD (42%) of water will be made available from treated waste water for HVAC makeup and gardening purpose. Wastewater generated will be treated in STP of total 200 KLD and ETP of 20 KLD capacities. Treated wastewater will be recycled for gardening, DG cooling & HVAC.

8. **Power Requirement:** The society has estimated the requirement of power connection of 1630 KVA to meets its electricity need for its proposed hospital. For the power load, the society's management has decided to apply with the state DISCOM before starting the commercial operation in the hospital. The company has planned two transformers of 2x 1250 KVA and for power backup, one silent DG set of 2 x 1010 KVA is proposed to be installed as laid down in the agreement.

9. **Rain Water Harvesting**

Sl No.	Area Description	Toal Area In Hectare	Rain Fall In mm/Hr	Run off Co-Efficient	Maximum Runoff In m^3/Hr	
A	Terrace Area (Roof top)	0.48491	150	0.9	654.62	m^3/Hr
B	Road/Paved Area	0.29667	150	0.75	333.75	m^3/Hr
C	Green Area	0.23268	150	0.2	69.804	m^3/Hr

Sl No.	Area Description	Toal Area In Hectare	Rain Fall In mm/Hr	Run off Co-Efficient	Maximum Runoff In m³/Hr	
Total Runoff in all area					**1058.17**	**m³/Hr**
Total Runoff need to be harvested by deducting Evaporation loss @ 10%					**952.37**	**m³/Hr**
Calculation for requirement of No. of Recharge Pit						
Capacity of Recharge Pit/Tank assuming 15 minutes of rain fall of peak Intensity (As per Rain Water Harvesting and Utilization in India by unhabitat.org)					241.67	m³/15 minutes
Volume of Each Recharge Pit (2 x 2 x 3) Cum					12	Cum
Total No of Recharge Pits Required to be constructed					20	Nos
No of recharge pits provided					25	Nos

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

Parking Zone	Area in Sq.m
Covered Parking	4871.59
Open Parking	1636.33
Total	**6507.92 Sq.m**

11. Fire Fighting Installations

The following are the type of fire protection systems envisaged for the building premises considering the height of the proposed Hostel block under "Institutional Buildings, Table 7, of National Building code – 2016, Part-4"

Hospital Block

Sr. No	Type Of Installation	Required / Not Required
1	Fire Extinguisher	REQUIRED
2	Hose Reel	REQUIRED
3	Wet riser	REQUIRED
4	Down-Comer	NOT REQUIRED
5	Yard Hydrant	REQUIRED
6	Automatic Sprinkler System	REQUIRED
7	Manually Operated Electric Fire Alarm System	REQUIRED
8	Automatic Detection and Alarm System	REQUIRED
9	Lift Well Pressurization	PROVIDED
10	Staircase Pressurization	PROVIDED
	WATER SUPPLY IN LITRES	
9	Underground Static Water Storage tank	1,50,000 Lts
10	Terrace Tank	20,000 Lts

Sr. No	Type Of Installation	Required / Not Required
	PUMP CAPACITY(L/MIN)	
11	Pump Near Underground Static Water Storage tank (Fire Pump) with Minimum pressure of 3.5kg/cm'2 at Terrace level	Provide required number of sets of pumps each consisting of two electric and one diesel pump (stand by) of capacity 2 280 liter/min and Jockey pump of capacity 180 liter/min One set of pumps shall be provided for each 100 hydrants or part thereof, with a maximum of two sets. In case of more than one pump set installation, both pump sets shall be interconnected at their delivery headers. Alternative to provisions of additional set of pumps, the objective can be met by providing additional diesel pump of the same capacity and doubling the water tank capacity as required for one set of pumps.

Residence Block:

Sl. No.	System	Required as per NBC 2016	Provided
1	Fire Extinguisher	R	Provided as per Norms
2	Hose Reel	R	Provided as per Norms
3	Wet Riser	NR	Provided as per Norms
4	Down Comer	R	Not Provided
5	Yard Hydrant	NR	Not Provided
6	Sprinkler	NR	Not Provided
7	U.G Tank	NR	Not Provided
8	O.H Tank	25 KL	25 KL
9	Pump Near U.G Tank	NR	Not Provided
10	Pump at Terrace	1 No Electric pumps @ 900 LPM	1 No Electric pumps @ 900 LPM

12. **Green Belt Development:** Green belt will be developed over an area of 2326.8 sq.m which is 15% of the total plot area. Total no. saplings to be planted are 580. **Revised green belt is 12619 sq.m as submitted in ADS.**

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

14. **Project Cost:** The estimated project cost is - Rs 98.46 Crores. Environment Management Cost includes Capital Cost of Rs 95.0 (in Lakhs) and Recurring Cost of Rs. 27.0 (in Lakhs).

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

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

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

a) Supporting Documents /certificate regarding the experience/expertise in Health care sector related to construction of hospital projects.

b) Copy of permission for drainage from the concerned authority.

c) Rectify the discrepancy in the built-up area figures in various online submitted documents.

d) Increase the greenbelt upto 20% of total plot area.

e) Copy of Application/permission from the concerned authority for withdrawal of surface water for the project. If not available, then apply for ground water.

f) PP shall include Oil and Grease Trap in STP.

g) PP shall include a biological treatment separately along with chemical treatment of waste water in ETP.

h) Application copy for firefighting Clearance. Fire recommendations shall strictly be followed.

i) Revisit the parking area calculation as per norms i.e. 40% of FAR for commercial projects.

j) The green area should be minimum 20% of the land area of the project site. Total ground coverage area including internal roads needs to be 40% maximum of the land area of the project site.

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

a) Environmental settings of the project site.

b) Extent of construction activity and operational status of all the units.

c) Road connectivity to the project site.

d) Drainage network at the site.

e) Greenbelt development in the existing plant.

f) Solid waste management practice of the existing plant.

g) Vacant land available.

h) Any other issues including local issues.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Supporting Documents /certificate regarding the experience/expertise in Health care sector related to construction of hospital projects.	This is an affordable Health care project under PPP moder which will be constructed by Govt. of Odisha, Health and Family Welfare Department. The agreement has been made between the Health & Family Welfare department and the private partner Angul Hospital and Research Foundation (A company formed by Utkal Health care Private Limited and Silicon Institute of Technology). One of the partner i.e. Utkal Health care Private Limited is a leading health care service provider in Odisha. In this regard we are submitting the letter from Health and Family welfare department is attached as **Annexure 1.**	Annexure 1 is attached and complied.
2.	Copy of permission for drainage from the concerned authority.	This is the hospital project operating in PPP mode. The drainage network for the site will be developed by Angul- Talcher – Meramundali Development authority and this will be developed before the commencement of the project. EIDP layout has been prepared and submitted for approval. Copy of the undertaking and EIDP plan attached is attached as **Annexure 2.**	Copy of the undertaking to submit Drainage permission is attached as Annexure 2.
3.	Rectify the discrepancy in the built-up area figures in various online submitted documents.	The proposed built-up area for the project is 33343.41 Sq. m. As we could not able to change the figures in the online submitted documents we are herewith submitting the copy of Brief summary for reference and final submission of built up area. **Annexure 3**	Annexure 3 is attached with rectified built up area.
4.	Increase the greenbelt up to 20% of total plot area.	Proposed revised green belt area will be 12619 sq.m which is 22.61 % of the built-up area and the revised plan is attached as **Annexure 4**	Revised green belt is 12619 sq.m.
5.	Copy of Application/permission from the concerned authority for withdrawal of surface water for the project. If not available, then apply for ground water.	The project has already obtained NOC for ground water withdrawl of 9.5 KLD from CGWA. This water will be used for domestic purpose during the construction period. Copy of the document attached as **Annexure 5.** Further we are submitting the undertaking that we will permission	Annexure 5 & 6 is attached and complied.(9.95 cum/day)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		from the concerned authority for withdrawal of surface/ ground water before the commencement of the project. **Annexure 6**	
6.	PP shall include Oil and Grease Trap in STP.	Revised STP design with O&G trap is attached as **Annexure 7**	Annexure 7 is attached and complied.
7.	PP shall include a biological treatment separately along with chemical treatment of waste water in ETP.	ETP proposed for the project involve both Biological and chemical treatment. MBBR process with microbial growth reduces BOD involve biological process of treatment. Chemical treatment process involve disinfection, chlorination and passing through ACF to the treated effluent storage tank. Copy of revised ETP design attached as **Annexure 8.**	Annexure 8 is attached and complied.
8.	Application copy for firefighting Clearance. Fire recommendations shall strictly be followed.	Copy of application for firefighting clearance is attached as **Annexure 9.**	Annexure 9 is attached.
9.	Revisit the parking area calculation as per norms i.e. 40% of FAR for commercial projects.	As per ODA norms parking requirement for hospital project is 30 % of FAR. Copy of the document is attached as **Annexure 10,** We have provided total parking area of 6790 Sq.m which is 31% of the FAR (FAR area is 21837.25 sqm).	Annexure 10 is attached and complied.
10.	The green area should be minimum 20% of the land area of the project site. Total ground coverage area including internal roads needs to be 40% maximum of the land area of the project site.	The green belt has been revised and now 22.1% of the area is proposed for green belt and revised layout plan is given in **Annexure 4.** For the proposed project ground coverage will be 31.52 % of the land area.	The green belt has been revised and now 22.1% of the area is proposed for green belt.

18. The proposed site was visited by the sub-committee of SEAC on **08.07.2024**. Following are the observations of the sub-committee:

a) The site is at the side of road and there was no construction activities.

b). PP and Consultant explained the lay out. There is no drain connecting to the site, hence the PP has to maintain ZLD

c) PP needs to have sufficient recharge pit to store rain water.

d) PP needs to provide STP and ETP separately and OWC for safe disposal/sale of STP sludge.

e) PP needs to tie-up with common bio-waste treatment provider before any construction.

f) Stack height to be higher than the height of buildings and as per CPCB norm.

g) Solar power of 5% of total power used to be provided.

h) All other clearances/permission like- fire, traffic etc. to be obtained and parking of 40% to be maintained.

i) All other points asked during presentation to be complied along with statutory clearances.

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

i) There is no drain connecting to the site, hence the PP shall ensure to maintain ZLD in the project premises.

ii) The PP needs to have sufficient recharge pit to store rain water.

iii) The proponent shall operate STP and ETP separately as standalone system and both shall not be inter-connected. ETP outlet effluent shall not be discharged to outside the project premises i.e. "zero discharge" from ETP to outside the premises shall be maintained.

iv) The proponent shall make agreement with nearby Common Bio-Medical Waste Treatment Facility having incinerator facilities for disposal of infectious waste, organic waste and health hazardous wastes.

v) Stack height to be higher than the height of buildings and as per CPCB norm.

vi) All other clearances/permission like- fire, traffic etc. to be obtained and parking of 40% to be maintained.

vii) The Decongestion plan as given by the proponent in the traffic density study report shall be implemented for compliance with a definite time frame.

viii) 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.

ix) 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.

x) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.

xi) The proponent shall obtain permission from concerned Fire Safety Authority.

xii) Trees located within the project area shall be transplanted to alongside the boundary green development area.

xiii) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.

xiv) 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.

xv) 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.

xvi) Before starting the construction project physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.

xvii) The project site needs to have proper drainage connection to the nearest public drain along with permissions from the designated authority to discharge excess treated sewage water and storm water.

xviii) The PP shall obtain relevant permission from the Atomic Energy Regulatory Board and compliance with the stipulated conditions there in, if they are proposing for use of radio isotopes / radio pharmaceuticals in the hospital.

xix) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

ITEM NO. 08

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

1. This proposal is for Environmental Clearance of M/s Barbil Hospital and Research Foundation for Construction of 200 Beded Multi speciality Hospital over a built-up area 32282.16 Sq.m at: Sundara, Tahasil- Barbil, Dist: Keonjhar of Sri Pradipta Mohapatra.
2. **Category**: As per the EIA notification 2006, and its subsequent amendments, proposed project falls in category B under schedule of Item 8(b)- Township and Area Development Projects.
3. **Location and connectivity**: The proposed project is located at plot No. – 436/554/1094 under holding No – 1/5 of village Sundara – 12 of Barbil Tahasil, District Keonjhar. The total plot area meant for construction of 200 bedded hospital will be established over an area of 4.000 Acres. The project site is at a distance of 1.18 km from Jindal Road and connected to SH 10B at distance 0.15Km. Topo Sheet No. – F45H8. Kissam – Gharabari. Site coordinates of the proposed project is as follows:

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

4. The site is coming under Special Planning Authority, Barbil.

5. The total plot area is 16080.00 Sq.mt. /1.608 Ha. /4.00 Ac. With total Built-up Area 28143.63 sq.mt.

6. **The Building Area Details of the project in tabulation form –**

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

7. **Water Requirement:** During the operation phase total water requirement will be 1,23,000 liters per day. Water will be sourced from ground water through bore wells. Permission from ground water board will be taken for withdrawal of ground water. Out of the total water requirement of 123 KLD, 71.34 KLD (58%) of fresh water, which will be met through borewell for drinking, washing and other domestic purpose. 51.56 KLD (42%) of water will be made available from treated wastewater for HVAC makeup and gardening purpose. Wastewater generated will be treated in STP of total 200 KLD and ETP of 20 KLD capacities. Treated wastewater will be recycled for gardening, DG cooling & HVAC.

8. **Power Requirement:** The society has estimated the requirement of power connection of 1630 KVA to meets its electricity need for its proposed hospital. For the power load, the society's management has decided to apply with the state DISCOM before starting the commercial operation in the hospital. The company has planned two transformers of 2x 1250 KVA and for power backup, one silent DG set of 2 x 1010 KVA is proposed to be installed as laid down in the agreement.

9. **Rainwater Harvesting:**

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

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

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

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

Hospital Block

Sl. No	TYPE OF INSTALLATION	REQUIRED / NOT REQUIRED
1	Fire Extinguisher	Required
2	Hose Reel	Required
3	Wet riser	Required
4	Down-Comer	Not Required
5	Yard Hydrant	Required
6	Automatic Sprinkler System	Required
7	Manually Operated Electric Fire Alarm System	Required
8	Automatic Detection and Alarm System	Required
9	Lift Well Pressurization	Provided
10	Staircase Pressurization	Provided
	Water Supply In Liters	
9	Underground Static Water Storage tank	1,50,000 Lts

10	Terrace Tank	20,000 Lts
	PUMP CAPACITY(L/MIN)	
11	Pump Near Underground Static water Storage tank (Fire Pump) with Minimum pressure of 3.5kg/cm'2 at Terrace level	Provide required number of sets of pumps each consisting of two electric and one diesel pump (stand by) of capacity 2 280 liter/min and Jockey pump of capacity 180 liter/min One set of pumps shall be provided for each 100 hydrants or part thereof, with a maximum of two sets. In case of more than one pump set installation, both pump sets shall be interconnected at their delivery headers. Alternative to provisions of additional set of pumps, the objective can be met by providing additional diesel pump of the same capacity and doubling the water tank capacity as required for one set of pumps.

Residence Block:

Sl. No.	System	Required as per NBC 2016	Provided
1	Fire Extinguisher	R	Provided as per Norms
2	Hose Reel	R	Provided as per Norms
3	Wet Riser	NR	Provided as per Norms
4	Down Comer	R	Not Provided
5	Yard Hydrant	NR	Not Provided
6	Sprinkler	NR	Not Provided
7	U.G Tank	NR	Not Provided
8	O.H Tank	25 KL	25 KL
9	Pump Near U.G Tank	NR	Not Provided
10	Pump at Terrace	1 No Electric pumps @ 900 LPM	1 No Electric pumps @ 900 LPM

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

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

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

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

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

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

a) Supporting Documents /certificate regarding the experience/expertise in Health care sector related to construction of hospital projects.

b) Copy of permission for drainage from the concerned authority.

c) Rectify the discrepancy in the built-up area figures in various online submitted documents.

d) Increase the greenbelt upto 20% of total plot area.

e) Layout of approach road, drainage, water discharge, various infrastructure developments permitted by IDCO along with supporting documents. Further a detailed structure of the proposal that will be developed by Project proponent.

f) PP shall include Oil and Grease Trap in STP.

g) PP shall include a biological treatment separately along with chemical treatment of waste water in ETP.

h) Application copy for firefighting Clearance. Fire recommendations shall strictly be followed.

i) Revisit the parking area calculation as per norms i.e. 40% of FAR for commercial projects.

j) Supporting documents/MoU with the organisation for disposal of wastes.

k) The green area should be minimum 20% of the land area of the project site. Total ground coverage area including internal roads needs to be 40% maximum of the land area of the project site.

l) Permission from Water Resources Dept. Odisha to be taken for use of ground water.

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

a) Environmental settings of the project site.

b) Extent of construction activity and operational status of all the units.

c) Road connectivity to the project site.

d) Drainage network at the site.

e) Greenbelt development in the existing plant.

f) Solid waste management practice of the existing plant.

g) Vacant land available.

h) Any other issues including local issues.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Supporting Documents /certificate regarding the experience/expertise in Health care sector related to construction of hospital projects.	This is an affordable Health care project under PPP moder which will be constructed and operated under Govt. of Odisha, Health and Family Welfare Department. The agreement has been made between the Health & Family Welfare department and the	Annexure 1 is attached and complied.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		private partner Barbil Hospital and Research Foundation (A company formed by Utkal Health care Private Limited and Silicon Institute of Technology). One of the partners i.e. Utkal Health care Private Limited is a leading health care service provider in Odisha. In this regard we are submitting the letter from Health and Family welfare department along with the MoU of the company is attached as **Annexure 1.**	
2.	Copy of permission for drainage from the concerned authority.	This is the hospital project operating in PPP mode. The drainage network for the site will be developed by Barbil Municipal Corporation and this will be developed before the commencement of the project. Copy of the undertaking in this regard is attached as **Annexure 2.**	Copy of the undertaking to submit Drainage permission is attached as Annexure 2
3.	Rectify the discrepancy in the built-up area figures in various online submitted documents.	The proposed built-up area for the project is 28143.63 Sq. m. As we could not able to change the figures in the online submitted documents we are herewith submitting the copy of Brief summary for reference and final submission of built up area. **Annexure 3**	Annexure 3 is attached with rectified built up area.
4.	Increase the greenbelt up to 20% of total plot area.	Proposed revised green belt area will be 2102.60 sq.m (20% of the plot area) and the revised plan is attached as **Annexure 4**	Annexure 4 is attached and complied.
5.	Layout of approach road, drainage, water discharge, various infrastructure developments permitted by IDCO along with supporting documents. Further a detailed structure of the proposal that will be developed by Project proponent.	A detailed external infrastructure plan has been prepared and approved by Barbil Development Authority for approval. Copy of the drawing is attached for reference. **Annexure 5.**	Annexure 5 is attached and complied.
6.	PP shall include Oil and Grease Trap in STP.	Revised STP design with O&G trap is attached as **Annexure 6.**	Annexure 6 is attached and complied.
7.	PP shall include a biological treatment separately along with chemical treatment of waste water in ETP.	ETP proposed for the project involve both Biological and chemical treatment. MBBR process with microbial growth reduces BOD involve biological process of treatment. Chemical treatment process involve disinfection, chlorination and passing through ACF to the treated effluent storage tank. Copy of revised ETP design attached as **Annexure 7.**	Annexure 7 is attached and complied.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
8.	Application copy for firefighting Clearance. Fire recommendations shall strictly be followed.	Copy of NOC for firefighting is attached as **Annexure 8.**	Annexure 8 is attached and complied
9.	Revisit the parking area calculation as per norms i.e. 40% of FAR for commercial projects.	As per ODA norms parking requirement for hospital project is 30 % of FAR. Copy of the document is attached as **Annexure 9,** We have provided total parking area of 6798 Sq.m which is 30% of the FAR (FAR area is 22636.18 sqm).	Annexure 9 is attached and complied
10.	Supporting documents/MoU with the organisation for disposal of wastes.	The project will generate about 700 kg/day of Biomedical waste which will be collected, segregated and disposed as per Biomedical waste management Rule 2016. We hereby undertake that we will dispose the waste as per the rule and do the necessary MOU with authorized agency before the operation of the medical project. Copy of the undertaking attached **Annexure 10**	The PP has furnished an undertaking for disposal of Biomedical waste attached as Annexure 10. However, the PP has not submitted any documents regarding the same.
11.	The green area should be minimum 20% of the land area of the project site. Total ground coverage area including internal roads needs to be 40% maximum of the land area of the project site.	The green belt has been revised and revised layout plan showing green belt is given in **Annexure 4.** For the proposed project ground coverage will be 33.43 % of the land area. The layout plan attached as **Annexure 4.**	-
12.	Permission from Water Resources Deptt., Odisha to be taken for use of ground water.	The project has already obtained NOC for ground water withdrawal of 9.5 KLD from CGWA. This water will be used for domestic purpose during the construction period. Copy of the document attached as **Annexure 11.** Further we are submitting the undertaking that we will permission from the concerned authority for withdrawal of surface/ ground water before the commencement of the project. **Annexure 12.**	complied

After detailed discussion, the SEAC decided to take the decision on the proposal after a site visit by sub-committee of SEAC.

ITEM NO - 09

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR TUMKELA SAND BED OVER AN AREA OF 16.00 ACRES OR 6.475 HECTARES IN VILLAGE TUMKELA, TAHASIL ROURKLEA, DISTRICT SUNDARGARH OF SMT. RAJASHREE BEHERA - EC

1. The Project Proponent of the proposed quarry M/s Tumkela Sand Bed Smt. Rajashree Behera was absent during presentation. The SEAC in its meeting held on dated 02-12-2023 decided to defer the proposal and consider the proposal for presentation in presence of Project Proponent or Authorized person on behalf of Project Proponent.
2. The PP gave detailed presentation on dated 18-05-2024.
3. This proposal is for obtaining Environmental Clearance for Proposal of Environmental Clearance for Tumkela Sand Bed over an area of 16.00 acres or 6.475 hectares in village Tumkela, Tahasil Rourklea, District Sundargarh of Smt. Rajashree Behera.
4. **Category:** As per EIA Notification 2006 and subsequent amendments, the proposed project falls under Category B in Schedule item 1(a)-Mining of Minerals.
5. **Category**: This project falls under Category "B" or Schedule 1(a): Mining of Mineral as per EIA Notification dated 14th Sept, 2006 and its amendments.
6. The Mining Lease has been granted vide letter no 3190 dated 27.10.2020.
7. The Mining Plan of Tumkela Sand Bed Mining Project has been approved by Deputy Director of Geology, Office of Joint Director Geology, Zonal Survey, Sambalpur, Odisha vide Vide Memo Number 05 (2) / ZS/01.01.2022.
8. Mining lease is an identified sairat source in the DSR Report Page no. 92 Para. No. 04.
9. **ToR details**: The TOR letter was issued by SEIAA, Odisha vide letter No.4571/SEIAA Dated 19.05.2022.
10. **Public hearing details:** Public Hearing was conducted on 14.11.2022 at 11.00 A.M at Sector 16, PH Colony Ground under Rourkela of Sundargarh District, Odisha. Issues raised during public hearing are air pollution, water pollution, noise pollution, land environment and employment.
11. **Location and connectivity** the mine lease area is located in village- Tumkela under Tahsil-Rourkela, District Sundergarh, is on Khata No.2, Plot No. 312/339/P of Kisam 'Nadi' covered in the Survey of India Toposheet No – F45G15. Area bounded by Lattitude-22°16'28.20"N to 22°16'33.70"N, Longitude-84°50'36.10"E to 84°50'52.10"E. The Nearest distance of approach road is 0.9 Km. Nearest National Highway is at NH- 143 at a distance of 6.0KM in SW. Nearest state highway is at SH-65 at a distance of 8.70 KM in SW. The Nearest Airport is Birsa Munda Airport Ranchi 125 Km in N. Nearest river is, Sankha River at a distance of 6.4 KM in SW. Nearest reserve forest is at Mudra Reserve Forest at a distance of 3.0 Km in NW. Nearest river embankment is near Rourkela – Gumma- Ranchi RD Road Bridge, Sankha River at a distance of 6.4 KM in SW. The Nearest Rail Bridge is Pradhanpalli Bridge at a distance of 4.2 Km in SW. The Nearest River Embankment is near Rourkela – Gumma- Ranchi RD Road Bridge, Sankha River at a distance of 6.4 KM in SW.

The Nearest Electric Transmission Line has crossed across the river with pole inside sand bed is near about 0.25km.

12. **Total reserves:** The total Mineable Reserves is 34283.7 cum and the Proposed Production for the Proposed Project is 8142cum /year.
13. **Replenishment study details:** The replenishment study was carried out in month of June, 2022 & October, 2022 for pre & post monsoon respectively by Field survey method. The quantity of sand replenishment within the source suring the year 2022-23 as per surface area method is 10800 cum.
14. **Mining Method:** The proposed method of mining is manual. The Proposed depth of mining is 0.5 Meters as per approved mining plan. The sand will be excavated by open cast manual method of mining spread over the river course devoid of water. Transportation would be undertaken through deployment of Dumper & Tractor. Since the depth of sand deposit is 0.5m, excavator, handpicks, spade, hand shovel will be used by labourers for extracting & loading of sand.

Table: Production details

Year	Year Vol. of stone in (m^3)
1st	8142
2nd	8142
3rd	8142
4th	8142
5th	8142
TOTAL	40710

15. **Baseline study conducted:** Baseline Study conducted during March 2022 to May 2022
16. **Water requirement**: Total quantity of water requirement for the project is 3.0 KLD.
17. **Greenbelt Development:** A total of 100 plants are proposed to be planted for the Proposed Site.
18. **Total Employment**: Total employment proposed is 9 nos of manpower for the project.
19. **Project Cost**: The estimated cost is ₹1.6 Crore and Proposed EMP cost is 6.635 lakhs(Capital) and 3.705 lakhs(recurring).

Table: Proposed CER budget

Sl. No.	Activity	Capital Cost (in Rs.) /Annum
1.	Distribution of PPE Such as hand sanitizer, hand gloves and nose mask and training to villagers for precautions needed in pandemic ***@ Rs. 200/kit (200 kits)***	40,000
2	Distribution of educational kits, books & sports kits to the students of village Tumkela	80,000
3	Contribution to the Village development in Tumkela Village	2,00,000
TOTAL		**3,20,000**

Table: Proposed EMP budget

Sr. No	Particulars	Amount per Annum (Lakh)	
		Capital	**Recurring**
1	Dust suppression	1.5	0.5
2	Plantation and its protection (@ Rs. 400/sapling- including fencing)	1.0	1.27 (for Maintenance @ Rs 350/- per dayX350 Days)
3	Personal Protective Equipment (9 Nos) (@ Rs. 1500/PPE kit)	0.135	0.135
4	Environmental Monitoring (Air, water, soil, noise)	2.0	1.2 (0.5 lakh, 0.4 lakh, 0.20 lakh, 0.10 lakh)
5	Haul road construction/ maintenance	2.0 (@ Rs 2.0 Lakh/km)	0.6 (@ Rs. 250*240 days* 1 labour)
6	Tarpaulin sheet	0.2	
	Total	**6.635**	**3.705**

20. **Environment Consultant**: The Environment consultant **M/s Cognizance Research India Pvt. Ltd. Noida** with the proponent made a presentation on the proposal before the Committee.

21. The SEAC in its meeting held on dated **18-05-2024** decided to take decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Clarification of the specific ToR whether there was a violation by previous lessee in the Mining lease area. Submit the details.	Tahasildar letter attached as **Annexure – I**.	Annexure – I is attached and the letter from the concerned Tahsildar intimated that there was no violation by previous lessee.
2.	Copy of Environmental Clearance which has been obtained earlier.	The earlier EC & compliance is attached herewith as Annexure – II.	Annexure – II (earlier EC & compliance) is attached and complied.
3.	The PP shall provide safety working zone as the nearest habitation is 30 metres away from the mining lease.	Tahasildar letter attached as Annexure – I and the safety measures proposed as Annexure V, also, an undertaking to this respect is attached as **Annexure – IV**.	Annexure – I (Copy attached) intimates that nearest habitation structures are temporary cattle shed and used for rest of people during cattle grazing. Annexure –IV (Copy attached) is attached and it is undertaking by the PP that mining plan

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
			will be modified and semi mechanized method of mining shall be adopted begore starting mining operation. Further the PP has intimated that mining will not be undertaken within the safety zone and blasting won't be carried out. Annexure-V is a note on operational safety measures.
4.	Revised calculation of the Replenishment study report along with the benchmark details. Geo coordinates of the sections to be provided.	The Benchmark details and the geo coordinates of the sections is attached as **Annexure – III.**	Annexure – III is attached and complied.
5.	Clarify if the mining will be carried out manually/excavators.	The Mining will be carried out in a semi-mechanized way where loading will be done by excavators and mining will be done manually. The mining plan will be modified for semi-mechanized method of mining after getting the EC & before execution of the lease based on the resolution made by Government of Odisha Steel & Mines Department on Guidelines for regulating the sand quarrying in the state vide letter no. 12793/S & M, Bhubaneswar, dated 21.12.2023. Also, and undertaking by the lessee is attached as **Annexure – IV.**	Annexure – IV (Copy attached) is attached and it is undertaking by the PP that mining plan will be modified for semi mechanized method of mining and shall be adopted before starting mining operation. Further, the PP has intimated that mining will not be undertaken within the safety zone and blasting won't be carried out.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Cognizance Research India Pvt. Ltd. Noida,** the SEAC recommended for grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions as per **Annexure – F** in addition to the following specific conditions.

i) Amended EIA Notification dated 25th July, 2018, Guidelines for sustainable sand mining, 2016 and Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India shall be adhered to in execution of Mining as per **Annexure – G.**

ii) The mine shall carryout manual method of mining at present and on modification of Mining plan for Semi mechanized mining, the case can be reconsidered for semi mechanized mining, if applied for.

iii) Sand extraction shall be limited to quantity and depth as per replenishment study report. Regular replenishment study as per guidelines to be conducted and report to be submitted.

iv) Provision of Bio-toilet shall be made at the site.

v) Avenue plantation and plantation on both sides of the haulage road in consultation with/ on the advice of concerned Forest Department, Government of Odisha & W.R. Department Government of Odisha as well.

vi) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.

MEMBER SECRETARY, SEAC

TERMS OF REFERENCE (ToR) FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT FOR M/S NEW LAXMI STEEL & POWER PVT. LTD. & M/S NEW LAXMI INDUSTRY PVT. LTD FOR EXPANSION OF EXISTING IF FROM 58,700 TPA (2 X 8 T + 1X10T) TO FINAL 4,45, 500 TPA (REPLACEMENT OF EXISTING 2 X 8T WITH NEW 2 X 25T, EXISTING 1 X 10 T AND NEW 3 X 25 T) AND NO EXPANSION OF EXISTING 1,44,000 TPA ROLLING MILL, 1,20,000 TPA STRUCTURAL MILL & 29,000 TPA GALVANIZED STEEL LOCATED ADJACENT AT JAYAMANGALA, SARUA, KHORDHA OF SRI RAHUL AGRAAWAL – TOR.

STANDARD TERMS OF REFERENCE (TOR):

1. **Executive Summary.**
2. **Introduction**
    i. Details of the EIA Consultant including NABET accreditation.
    ii. Information about the project proponent.
    iii. Importance and benefits of the project.
3. **Project Description**
    i. Cost of project and time of completion.
    ii. Products with capacities for the proposed project.
    iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
    iv. List of raw materials required and their source along with mode of transportation.
    v. Other chemicals and materials required with quantities and storage capacities
    vi. Details of Emission, effluents, hazardous waste generation and their management.
    vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
    viii. Process description along with major equipments and machineries, process flow sheet (quantative) from raw material to products to be provided.
    ix. Hazard identification and details of proposed safety systems.
    x. Expansion/modernization proposals:
        a) Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions

Environmental Scientist, SEAC

stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing existing operation of the project from SPCB shall be attached with the EIA-EMP report.

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

4. **Site Details**

i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.

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

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

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

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

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

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

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

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

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

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

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

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

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

   i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable).

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

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

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

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

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

6. **Environmental Status**

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

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

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

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

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

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

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

   viii. Soil Characteristic as per CPCB guidelines.

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

Jwalak
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arrangement etc.

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

xi. Socio-economic status of the study area.

7. **Impact and Environment Management Plan**

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

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

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

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

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

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

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

viii. Action plan for the green belt development plan in 33 % area i.e. land with not less than

ix. 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.

Environmental Scientist, SEAC

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

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

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

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

8. **Occupational health**

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

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

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

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

9. **Corporate Environment Policy**

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

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

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

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

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

11. Enterprise Social Commitment (ESC)

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

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

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

14. **The prescribed TOR would be valid for a period of four years for submission of the EIA/EMP report**

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CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S ACRERISE REALTY LLP FOR RESIDENTIAL PROJECT THE TOTAL LAND AREA IS 10,885.95 M2 (2.68 ACRES) (NET AREA 10,086.11 M2 (2.49 ACRES) AND THE TOTAL PROPOSED BUILT-UP AREA IS 60,106.84 M2 AT MOUZA BIDYADHARPUR, TEHSIL-BARANG, PS - CUTTACK SADAR, DISTRICT - CUTTACK OF MR SHEIKH MAIRAJUL HAQUE - EC

PART A - SPECIFIC CONDITIONS:

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

TOPOGRAPHY AND NATURAL DRAINAGE

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

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

9. As proposed, fresh water requirement from ground water shall not exceed 225 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.

Environmental Scientist, SEAC

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

11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.

12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.

13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.

14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.

15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of 03 nos. shall be provided.

17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.

18. The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

SOLID WASTE MANAGEMENT

19. The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.

20. Disposal of muck during construction phase shall not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.

21. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.

22. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

JNayak
Environmental Scientist, SEAC

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 305 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.

Environmental Scientist, SEAC

34. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 5% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher. Follow super ECBC requirement of ECBC 2017 and provide compliance report.

35. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

36. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

37. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.

AIR QUALITY AND NOISE

38. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, morram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, morram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

39. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.

40. **Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.**

41. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

Environmental Scientist, SEAC

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 m^2 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. 2,017.222 sqm (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.

Jnayak
Environmental Scientist, SEAC

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

JNayak
Environmental Scientist, SEAC

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

PART B – GENERAL CONDITIONS

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

JNayak
Environmental Scientist, SEAC

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

11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO_2, 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.

Jnayak
Environmental Scientist, SEAC

ANNEXURE- C

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR M/S KJST IRON, MANGANESE & BAUXITE MINE FOR EXPANSION IN IRON ORE PRODUCTION CAPACITY FROM 2.80 TO 3.35 MTPA ROM AND BAUXITE (ML AREA: 188.268 HA) PRODUCTION CAPACITY 0.13 MTPA ALONG WITH 3 CRUSHING UNIT AND 6 SCREENING UNITS AT VILLAGES KALMANGA, JALDIHI, SIDIMBA AND TANTIGRAM, TEHSIL: KOIRA, DISTRICT: SUNDERGARH OF SRI PRABODH MOHANTY – EC.

(I) Statutory compliance

(i) This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.

(ii) The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.

(iii) The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.

(iv) This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project,

(v) This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the project.

(vi) Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board.

(vii) The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.

(viii) The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made thereunder in respect of lands which are not owned by it.

(ix) The Project Proponent shall follow the mitigation measures provided in MoEF&CC's Office Memorandum No. Z-l1013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease

Jnayak
Environmental Scientist, SEAC

area".

(x) The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.

(xi) A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.

(xii) State Pollution Control Board shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.

(xiii) The Project Authorities should widely advertise about the grant of this EC letter by printing the same m at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board and web site of the Ministry of Environment, Forest and Climate Change (www.environmentclearance. nic.in). A copy of the advertisement may be forwarded to the concerned MoEF&CC Regional Office for compliance and record.

(xiv) The Project Proponent shall inform the MoEF&CC/SEIAA, Odisha for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

(II) <u>Air quality monitoring and preservation</u>

(i) The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM_{10}, $PM_{2.5}$, NO_2; CO and SO_2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.

(ii) Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM_{10} and $PM_{2.5}$ are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from ah sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the

Environmental Scientist, SEAC

standards prescribed by the MoEF&CC/ Central Pollution Control Board.

(III) **Water quality monitoring and preservation**

(i) In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF&CC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.

(ii) Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

(iii) Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

(iv) The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-a-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEF&CC / SEIAA, Odisha. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, SEIAA, Odisha, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.

Environmental Scientist, SEAC

(v) Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J-20012/1 /2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.

(vi) The project proponent shall construct retaining wall and settling pond within the lease area. Further, check dams shall be constructed at strategic locations in which rain water passes in rainy season. Finally, the excess supernanted after sedimentation shall be allowed to spill away through stone pitch structure to the nearby valley.

(vii) De-silting of agricultural lands in buffer zone and beyond including nearby Nalas/rivers perennially periodically and perpetually caused due to wash up of minerals/OB/dumps shall be done as per SOP submitted. A legal affidavit shall be submitted within 6 months from the date of issue of Environmental Clearance to this effect with periodicity of de-silting.

(viii) Detail design of the existing retaining wall and the proposed for the expansion from a chartered Civil Engineer shall be submitted within 6 months from the date of issue of Environmental Clearance to ensure that no silt after wash up is escaped from the core / buffer zone of the mines.

(ix) An area of 3.40Ha shall be kept for public use as pond and road. Hence, remaining 52.956Ha shall be planted during life of the mine in a phased manner i.e. within a period of 20 years.

(x) Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office, MoEF&CC annually.

(xi) Industrial waste water (workshop and waste water from the mine) should be properly collected and treated in an ETP as proposed so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.

(xii) The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board.

(IV) <u>Noise and vibration monitoring and prevention</u>

(i) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.

(ii) The illumination and sound at night at project sites disturb the villages in

Environmental Scientist, SEAC

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 /night hours.

(iii) The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The worker engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

(V) Mining Plan

(i) The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.

(ii) The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.

(iii) The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-a-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional Office / SEIAA, Odisha.

(VI) Land reclamation

(i) The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan

Environmental Scientist, SEAC

as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.

(ii) The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.

(iii) The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.

(iv) The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.

(v) The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha.

(vi) Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and topsoil / OB / waste dumps to prevent runoff of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.

(vii) Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the comers of the garland drains.

(viii) The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.

JNayak
Environmental Scientist, SEAC

(ix) The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

(VII) Transportation

(i) No Transportation of the minerals shall be allowed in case of roads passing through transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.

(ii) The Main haulage road within the mine lease should be provided with a permanent water arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

(iii) Traffic management shall be done as per recommendation of Traffic Management Study Report.

(iv) The Project Proponent shall provide parking plaza for the heavy vehicles within the lease area as recommendation of NEERI.

(VIII) Green Belt

(i) The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.

(ii) The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those

JNayak
Environmental Scientist, SEAC

species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.

(iii) The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.

(iv) The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.

(v) And implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.

(IX) <u>Public hearing and human health issues</u>

(i) The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEF&CC Regional Office and DGMS on half-yearly basis.

(ii) A commitment in form of an undertaking for periodical occupational health checkup of the employee and the local people shall be done through an occupational health expert as per the detailed action plan submitted with the proposal within 6 months from the date of issue of Environmental Clearance.

(iii) The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not

Jnayak
Environmental Scientist, SEAC

to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.

(iv) The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x I4 inches and of good quality).

(v) The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities, (c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1),Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEF&CC annually along with details of the relief and compensation paid to workers having above indications.

(vi) The Project Proponent shall ensure that 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.

(vii) Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.

Environmental Scientist, SEAC

(viii) The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing conducted on 09.11.2021 shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.

(ix) Issues raised and recorded in proceedings of public hearing w.r.t. environment / pollution / CER shall be complied by the Mining Authority as per OM F. No. 22-65/2017-IA.III, dated 30.09.2020 of MoEF&CC, Govt. of India.

(X) Corporate Environment Responsibility (CER)

(i) The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by SEAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.

(ii) Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEF&CC and its concerned Regional Office / SEIAA, Odisha.

(XI) Miscellaneous

(i) The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.

(ii) 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.

(iii) The project proponent shall establish a solar power plant with 30KVA capacity within the lease area as proposed.

(iv) The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MoEF&CC & its concerned Regional Office, SEIAA, Odisha, Central Pollution Control Board and State Pollution Control Board.

(v) A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.

(vi) The proponent shall comply all the specific conditions as recommended by CSIR-NEERI on carrying capacity study (as applicable) in time bound manner as proposed.

Environmental Scientist, SEAC

(vii) The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

(viii) The project proponent shall augment infrastructure on drinking water, health care and education in nearby villages as per time bound action plan submitted.

(ix) The project proponent shall obtain permission from DGMS under 106(2b) to carry out blasting operation within the lease area.

(x) The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.

(xi) Any appeal against this environmental 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.

JNayak
Environmental Scientist, SEAC

22. Surface water quality of nearby water bodies.

23. Details of proposed groundwater monitoring wells, locations, frequency of monitoring, parameters, etc.

24. Action plan for the greenbelt development in accordance to CPCB published guidelines.

25. Details of pollution control technologies and online monitoring equipments.

26. Details of monitoring of pollutants at source -performance of the incinerator. including operating hours, fuel consumption, operating parameters (Combustion chamber - temperature, pressure, Stack temperature, total particulate matter, HCl, NOx as per Bio-medical Waste Management Rules, 2016.

27. Stack and fugitive emissions may be monitored for SPM, HCL & NO_2 as per Bio-medical Waste Management Rules, 2016.

28. Specific programme to monitor safety and health protection of workers.

29. Details of Administrative and technical organizational structure.

30. EMP devised to mitigate the adverse impacts of the project should be provided along with item-wise cost of its implementation (Capital and recurring costs).

31. Details of the emergency preparedness plan and on-site & off-site disaster management plan and on-site & off-site disaster management plan.

32. Details of measures to be taken for control of air pollution including measures to control emission of Dioxin and Furan.

33. Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment.

34. Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.

35. The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter in the EIA report by the accredited consultants.

36. Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.

37. **The prescribed TOR would be valid for a period of four years for submission of the EIA/EMP report.**

Environmental Scientist, SEAC

ANNEXURE-D

TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT FOR DEVELOPMENT OF COMMON BIOMEDICAL WASTE TREATMENT AND DISPOSAL FACILITY (TOR).

1. Executive summary of the project shall be prepared highlighting the objectives of the proposal, use of resources, justification, etc. In addition, it should provide EMP.
2. Justification for selecting the proposed capacity of the incineration and other facilities.
3. Establishment of the facility as per Bio-medical Waste Management Rules, 2016.
4. Land requirement for the facility including its break up for various purposes, its availability and optimization.
5. Details of proposed layout clearly demarcating various activities such as security,
6. Waste Storage Rooms, Waste Treatment Equipment Rooms/Areas, Treated Waste Storage Room, Pollution Control Devices like APCS and ETP, ash storage/disposal area, vehicle washing areas, and others such as admin area, worker's room, health centers, greenbelt, etc.
7. Details on collection and transportation of Bio Medical Waste from health care establishments. No. of vehicles and feature of vehicles, etc.
8. Details of waste storage facilities/rooms.
9. Details of the treatment equipment's capacity and make.
10. Details of the incineration system - a statement on the compliance to the CPCB guidelines for common bio medical waste incinerators in respect of waste feed cut-offs, operating parameters of combustion chambers, flue gas cleaning, ash handling, etc.
11. Details on fuel requirement for incineration.
12. Details on flue gas emissions discharge through stack and proposed pollution control technologies.
13. Details on residue/ash generation and management.
14. Details of waste heat utilization, if any.
15. Details of wastewater management.
16. Details of the proposed overall safety and health protection measures.
17. Details of source of water and power to the facility.
18. Details of the existing access road(s)/walkways to the designed operations in the site and its layout.
19. Location of the incineration facility and nearest habitats with distances from the facility to be demarcated on a toposheet (1: 50000 scale).
20. Land use map based on satellite imagery including location specific sensitivities such as national parks / wildlife sanctuary, villages, industries, etc.
21. Topography details.

Jnayak
Environmental Scientist, SEAC

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S ANGUL HOSPITAL AND RESEARCH FOUNDATION FOR CONSTRUCTION OF 200 BEDDED MULTI SPECIALTY HOSPITAL TOTAL BUILD UP AREA- 33343.30 SQ.M AT: KANGULA, TAHASIL- ANUGUL, DIST: ANUGUL OF SRI PRADIPTA MOHAPATRA - EC

PART A - SPECIFIC CONDITIONS:

1. Consent to Establish / Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc. as per National Building Code including protection measures from 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 71.34 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring

JNayak
Environmental Scientist, SEAC

that there is no impact on other users.

11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.

12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.

13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.

14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.

15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of 25 nos. shall be provided.

17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.

18. The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

SOLID WASTE MANAGEMENT

19. The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.

20. Disposal of muck during construction phase shall not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.

21. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.

22. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

23. A certificate from the competent authority handling municipal solid wastes, indicating the

Environmental Scientist, SEAC

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

SEWAGE TREATMENT PLANT

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

ENERGY

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

Environmental Scientist, SEAC

34. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 5% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher. Follow super ECBC requirement of ECBC 2017 and provide compliance report.

35. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

36. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

37. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.

AIR QUALITY AND NOISE

38. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, morram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, morram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

39. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.

40. **Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.**

41. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

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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 m^2 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. 12619sqm (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.

JNayak
Environmental Scientist, SEAC

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

Environmental Scientist, SEAC

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

PART B – GENERAL CONDITIONS

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

JNayak
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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, SO_2, 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.

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ANNEXURE- F

STANDARD ENVIRONMENTGAL CLEARANCE CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR SAND MINING

Stipulated Conditions:

1. The project proponent should carry out River bed sand mining manually by engaging local laborers in force to check over exploitation of sand at the source.
2. Any change in the plan or quantity to be produced shall require prior approval of SEIAA.
3. There shall be a 'no working zone' to protect the embankment on both sides, road or rail bridge in the vicinity, if any, dam, weir, water intake structure of irrigation or drinking water project, or any cross drainage structure. 10 % of the width of river shall be left intact along the embankments on both sides as 'no mining zone'. Further, no mining shall be allowed within 200 m of any existing structures dam, weir, water intake structure of irrigation or drinking water project, or any cross drainage structure. In case of River Bridge, this no mining zone shall extend upto a minimum stretch of 200 meters from the bridge and it may extend upto 500 meters in sensitive locations. The lease area shall be accordingly curtailed to carve out the actual sand mining area within the leasehold. Exact map of the lease area, and the 'no mining zone' shall be drawn to scale, showing the DGPS coordinates of all corner points, and the location of the bridge, embankment, extraction route & other structures; and such map has to be submitted to SEIAA by the project proponent through the Tahasildar within three months of the date of issue of the EC. The quantum of sand allowed to be extracted will be worked out on the basis of the actual working area.
4. The lease area and the actual working area shall be demarcated on the ground by erecting durable masonry /concrete pillars by the project proponent.
5. The project proponent shall take prior statutory and regulatory clearance as required from the concerned authorities in respect of the project, before carrying out any operation.
6. Mining is not permissible within the water channel or stream flow area. No stream shall be diverted for the purpose of mining and no natural water course shall be obstructed. The mining or any ancillary activity shall not in any way disturb the flow pattern of the river water during the non monsoon period. There shall be no sand mining in the river during the rainy season or when there is flow of water in the river.
7. Sand mining operations shall not affect the existing sources for irrigation / drinking water / industrial purpose.
8. The natural sand dunes, if any, near or surrounding the lease area shall not be disturbed.
9. No transportation of the minerals shall ordinarily be allowed on any road passing through villages/habitations/forest land without prior explicit permission. Transportation

Jnayak
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of minerals through existing rural roads can be allowed only by the concerned Govt. Department/BDO and only after required strengthening, such that the carrying capacity of road is increased to handle the sand truck traffic. The project proponent shall bear the cost towards the widening and strengthening of existing public roads in case the same is proposed to be used for the project. No movement on any road is allowed on existing village road network without appropriately increasing the carrying capacity of such roads. 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 traffic density. Plying of sand extraction trucks may be allowed on roads / path ways passing close to schools, temples, hospitals and such other public places only with prior written permission of competent authority.

10. Vehicles hired for transportation of sand from the site should be in good condition and should have pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.

11. The vehicles shall not be overloaded and shall be covered with Tarpaulin. The Tahasildar may collect an appropriate road maintenance levy from the lessee as part of the lease conditions on the basis of quantum of sand transported, and utilize the proceeds of the levy for proper maintenance of the extraction paths and roads to prevent their degradation on account of plying of sand trucks.

12. The project proponent shall take all precautionary measures against causing damage to flora and fauna of the locality. The PP shall plant and nurse to full establishment a minimum of 50 number of saplings of native tree species along the approach roads, river banks and in community areas in consultation with the Gram Panchayat.

13. Water spray should be made on the road/extraction paths to control dust emission during transportation of sand.

14. The Project Proponent shall undertake phased restoration, reclamation and rehabilitation of land affected by mining and completes this work before abandonment of mine.

15. Environmental Management Plan (EMP) shall be implemented by PP to ensure compliance with the environmental conditions specified above. The year wise funds earmarked for environmental protection measures shall be kept in separate account and shall be spent according to the plan proposed. Year wise progress of implementation of EMP shall be reported to the SEIAA, Odisha and OSPCB along with the compliance report.

16. The proponent shall take necessary measures to ensure that there is no adverse impact of the mining operations on the human habitation if any, existing nearby.

17. It shall be mandatory for the project management to submit quarterly compliance reports on the status of implementation of the above stipulated environmental safeguards to the SEIAA, Odisha / SPCB, Odisha/ Regional Office of the MoEF&CC, Bhubaneswar, in hard and soft copies on 1st day of January, April, July, October of each calendar year, failing which EC is liable to be revoked.

Jnayak
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18. River Bank stabilization shall be made through stone patching. Plantation of adequate number native species on river banks and both sides of haulage roads shall be made.

19. During transportation of sand, all traffic safety measures shall be taken to avoid any kind of accidents.

20. Bio - toilet provision shall be made.

21. Stone patching on river bank with plantation in-between and the ramp construction shall be done in consultation with and advice of concerned W.R.Deptt, Government of Odisha.

22. Necessary sprinkling on Haulage Road and Avenue plantation shall be done.

23. At the end of mine closure, the proponent shall immediately remove all the sheds put up in the quarry and all the equipment in the area before closure of the quarry.

24. The conditions stipulated in the environmental clearance will be closely monitored on the ground by the lease granting authority, i.e. the Tahasildar, who shall ensure compliance of the stipulated conditions and take corrective measures promptly in case of any non- compliance and also ensure that the project proponent submits quarterly compliance reports.

25. The concerned Regional Office of the MoEF&CC/ SPCB, Odisha shall periodically monitor compliance of the stipulated conditions as applicable for this project. The project authorities should extend full cooperation to the MoEF&CC officer(s)/SPCB officer(s) by furnishing the requisite data / information / monitoring reports.

26. A copy of the clearance letter shall be sent by the proponent to concerned Gram Panchayat /Panchayat Samiti /Zilla Parisad /Municipal Corporation / Urban Local Body as the case may be.

27. Project proponent shall obtain Consent to Operate from the OSPCB and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the State Pollution Control Board.

28. The SEIAA, Odisha may revoke or suspend this EC, if implementation of any of the above conditions is not satisfactory. The SEIAA, Odisha reserves the right to alter /modify the above conditions or stipulate any further condition in the interest of environment protection.

29. The Project Proponent (lease holder) shall inform the SEIAA of any change in ownership of the mining lease. In case, there is any change in ownership or mining lease is transferred, then mining operation can be carried out only after transfer of EC as per provisions of the para 11 of EIA Notification, 2006, as amended from time to time.

30. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this environment clearance besides attracting penal provisions in the Environment (Protection) Act, 1986.

Jnayak
Environmental Scientist, SEAC

31. The above conditions will 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 and the Public Liability Insurance Act,1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court and any other Court of Law relating to the subject matter.

32. This Environmental Clearance (EC) is subject to orders/judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.

33. Any appeal against this environmental 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.

Jnayak
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Annexure - G

ESSENTIAL PHYSICAL CRITERIA AS PER ENFORCEMENT AND MONITORING GUIDELINES FOR SAND MINING, JANUARY 2020 OF MOEF&CC, GOVT. OF INDIA

Sl. No.	Essential Criteria	Reference
1.	"No Mining Zone": 1/4the part of the river width (excluding 3/4the central part of the river width) on both sides of the river towards the river bank	4.1.1 (Para - e) Page - 16
2.	a) Distance between two clusters : ≥2.5 km b) Area of mining lease area is a cluster: ≤10 ha.	4.1.1 (Para - k) Page - 19
3.	Concave River Bank : No extraction of sand	
4.	No mining if a) Upstream: Lease is 1 km from major Bridge and high ways or 5(x) of the Bridge / public civil structure / water intakes point subject to lease is located at a minimum 250 meter distance. Where x = Span of the bridge. b) Downstream side: Lease is 1 km from the major bridge and Highways Or 10x of the bridge / public civil structure /water intake point Subject to lease is located at a minimum distance of 500 meter where x = span of the bridge	4.3 (Para - h) Page - 23
5.	Mining depth : ≤ 3 meter (maximum 3 meter)	4.3 (Para - m) Page - 24
6.	Mining distance from river bank: 1/4th of the river width, But subject to not less than 7.5 meter	4.31 (Para - m) Page - 24
7.	Area for removal of minerals : ≤60% of mine lease area	4.3 (Para - s) Page - 25
8.	Minable sand per ha. Available for actual mining : ≤60,000 MT/Annum	
9.	Regular replenishment study and replenishment rate	

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