

**MINUTES OF THE 98<sup>TH</sup> MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC), JHARKHAND HELD ON 02<sup>ND</sup>, 03<sup>RD</sup>, 04<sup>TH</sup> and 05<sup>TH</sup> NOVEMBER, 2022**

The 98<sup>th</sup> meeting of State Level Expert Appraisal Committee (SEAC), Jharkhand was held on 02<sup>nd</sup>, 03<sup>rd</sup>, 04<sup>th</sup> and 05<sup>th</sup> November, 2022 under the Chairmanship of Shri Ashok Kumar Singh, IFS (Retd.) in the Conference Room at SEAC, Ranchi.

The following members were present:

1. Shri Ashok Kumar Singh, IFS (Retd.) - Chairman
2. Dr. Kirti Avishek - Member
3. Shri Niranjana Lal Agarwalla - Member
4. Dr. Raju Kumar - Member
5. Dr. Ajay Govind Bhatt - Member
6. Shri Srikant Verma, IFS - Secretary

SEIAA forwarded various projects to the SEAC for the technical appraisal after the last SEAC meeting held on 14<sup>th</sup>, 15<sup>th</sup>, 16<sup>th</sup> 17<sup>th</sup> and 18<sup>th</sup> September, 2022. These projects have been put up for discussions. Besides, these Projects, wherein PP's were asked to provide requisite information / clarifications in the earlier meeting of SEAC, were also considered for appraisal. The Project Proponents have been asked to make technical presentation for the appraisal of their projects before the committee.

The following observations / recommendations were made during the presentation (Project -wise), as under :-

**Day 1 : November 02<sup>nd</sup>, 2022 [Wednesday]**

**A. Deputy Commissioner - cum – District Magistrate, Hazaribagh or through authorized representative and M/s Rian Enviro Pvt. Ltd.**

**i. Draft District Survey Report (DSR) of sand, Hazaribagh**

The DSR was submitted by Deputy Commissioner, Hazaribagh. He was represented by District Mining Officer, Hazaribagh Sri Ajit Kumar and Assistant Director, Geology, Hazaribagh Md. Abu Husain at the SEAC meeting on 02.11.2022.

During the meeting the consultant Rian Enviro Pvt. Ltd. submitted as follows :

1. The DSR submitted was at a draft stage and it was not a final & complete DSR.
2. No field survey and primary data collection has been done.
3. The DSR submitted is based only on secondary data.
4. The consultant declared that he has not received the work order from the concerned authorities.
5. The consultant admitted that the Enforcement and Monitoring Guidelines for Sand Mining 2020 has not been followed in the preparation of the draft DSR submitted for appraisal.



The Committee is of the view that the DSR should be prepared in the light of Hon'ble Apex Court in Civil Appeal no. 3661-3662/2020, Pawan Kumar vs State of Bihar & ors, Hon'ble NGT in O.A. no. 54/2022/EZ, Bhumi Adhigrahan Visthapan Avam Punarvas Kisan Samiti vs State of Jharkhand & ors and Enforcement and Monitoring Guidelines for Sand Mining 2020.

The final DSR should be prepared in the light of above guidelines and Hon'ble Apex Court & Hon'ble NGT direction and to be submitted for appraisal.

**B. Deputy Commissioner - cum – District Magistrate, Pakur or through authorized representative and Atmos Sustainable Solution Pvt. Ltd.**

**i. Draft District Survey Report (DSR) of sand, Pakur**

The DSR was submitted by Deputy Commissioner, Pakur. He was represented by District Mining Officer, Pakur Sri Pradeep Kumar at the SEAC meeting on 02.11.2022. The consultant i.e. Atmos Sustainable Solution Pvt. Ltd. was not present before SEAC, Jharkhand.

During the meeting the DMO, Pakur submitted the following :

1. The DSR submitted was at a draft stage and it was not a final & complete DSR.
2. No field survey and primary data collection has been done.
3. The DSR submitted is based only on secondary data.
4. The authorized person admitted that the Enforcement and Monitoring Guidelines for Sand Mining 2020 has not been followed in the preparation of the draft DSR submitted for appraisal.

The Committee is of the view that the DSR should be prepared in the light of Hon'ble Apex Court in Civil Appeal no. 3661-3662/2020, Pawan Kumar vs State of Bihar & ors, Hon'ble NGT in O.A. no. 54/2022/EZ, Bhumi Adhigrahan Visthapan Avam Punarvas Kisan Samiti vs State of Jharkhand & ors and Enforcement and Monitoring Guidelines for Sand Mining 2020.

The final DSR should be prepared in the light of above guidelines and Hon'ble Apex Court & Hon'ble NGT direction and to be submitted for appraisal.

**C. Consideration of Proposals**

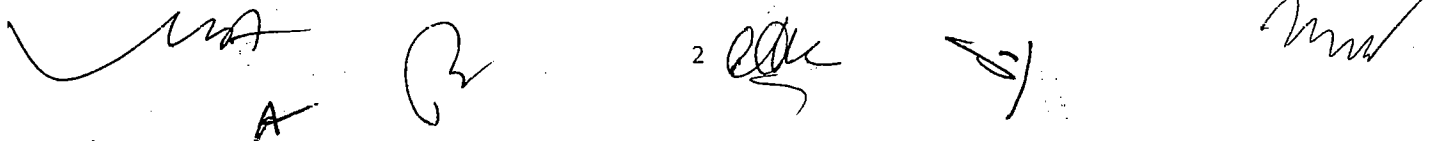
1. Kabribad Opencast Coal Mine Project of M/s Central Coalfields Limited, Village : Kabribad, Chunjka, Patrodih, Khandih, Chilga, Tehsil : Giridih, Distt. : Giridih, Jharkhand (90.84 Ha)

(Proposal No. : SIA/JH/CMIN/76338/2018)

Name of the consultant: CMPDI, Kanke Road, Ranchi

This is a violation project which has been taken for appraisal on 02.11.2022.

Kabribad OC is an operating mine located in Giridih coalfields of Central Coalfields Limited, Jharkhand. Mining activity in the coalfield started as early a 1871 by M/s Bangal Coal Company & by then State Railway and subsequently transferred to National Coal Development Corporation

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(NCDC) about 60 years back. Later in the year 1973, it came under the control of Central Coalfields Limited (CCL), a subsidiary of Coal India Limited. Presently it is under the administrative control of Giridih Area of CCL.

The Kabribad OCP is located about 3.50 kms to the south Giridih town and is covered in Survey of India toposheet no. 72L/8 (in 1:50,000 scale). The block boundary by latitudes 24°8'45'' to 24°9'41'' North and Longitudes 86°17'39'' to 86°18'42'' East. The nearest railway station Giridih is about 5 km from the project. Giridih railway station is on the Giridih-Madhupur line of the Asansol Railway division in the Eastern Railway Zone of Indian Railway.

The general flow of the streams is towards south. Most of the streams meet Barakar River at about 6 km south-west of the proposed OCP. The water level is very close to the surface during rainy season and about 20 m below surface during dry season.

The method of mining proposed to be adopted to extract coal and OB in Kabribad Opencast mine will be inclined slicing with shovel-dumper combination as the gradient of the seams vary from 6-10° with an average gradient of 8°. It is proposed to mine Khandiha I & II seams in Kabribad OC.

The mineable reserve of Kabribad OC is estimated as 3.60 Mte with corresponding volume of OB estimated as 5.14 Mm<sup>3</sup> with an average stripping ratio of 1.43 cum/t. The life of proposed project is 7 years.

Kabribad OC receives power at 11 KV from Beniadih substation of CCL DVC substation at Bhandaridih at a distance of 25 kms is the main source of power. The power consumption demand is max. 4500 KVA (Total annual consumption = 18375.30 MWH).

Water requirement:

Industrial water	Domestic water	Mine discharge
225 m <sup>3</sup> /day	317 m <sup>3</sup> /day	300 m <sup>3</sup> /day
Industrial water demand of Kabribad OC is being fulfilled by mine water discharge. The domestic water demand is fulfilled from Giridih Colliery abandoned UG water source.		

The total project area of Kabribad OCP is 90.84 Ha. The proposed land use during mining is as given below:

Land Use During Mining	
Particulars	Area (Ha.)
Quarry	39.94
OB dump	31.95
Old mine void filled with water	3.77
Infrastructures (W/S, coal Stock, etc.)	2.62

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Road	0.91
Safety zone & vacant land	11.65
<b>Total Area</b>	<b>90.84</b>

The coal production from Kabribad OC was as given below:

Year	Kabribad OC Coal Prod. (Mte)
<b>1993-94</b>	<b>0.297</b>
1994-95	0.280
1995-96	0.195
1996-97	0.288
1997-98	0.249
1998-99	0.128
1999-00	0.078
2000-01	0.104
2001-02	0.110
2002-03	0.146
2003-04	0.122
2004-05	0.150
2005-06	0.137
2006-07	0.201
<b>2007-08</b>	<b>0.403</b>
<b>2008-09</b>	<b>0.415</b>
<b>2009-10</b>	<b>0.371</b>
<b>2010-11</b>	<b>0.338</b>
2011-12	0.234

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*MW*

Year	Kabribad OC Coal Prod. (Mte)
2012-13	0.310
2013-14	0.431
2014-15	0.559
2015-16	0.331
2016-17	0.188
2017-18	0.25
2018-19	0.19
2019-20	0.00
2020-21	0.00

**Geological and Mining Characteristics of Kabribad OC**

Sl. No.	Particulars	Unit	Value
<b>I.</b>	<b>COAL SEAMS</b>		
<b>A.</b>	<b>SEAM THICKNESS</b>		
1	Khandia III/IV seam	M	2.74-7.73
2	Upper Khandia	M	6.4-13.41
3	Lower Khandia	M	1.10-4.98
<b>B.</b>	<b>GRADIENT OF THE SEAM</b>	Degree	6-10
<b>C</b>	<b>AV. SP. GRAVITY OF SEAM</b>		1.5-1.70
1	Khandia III/IV seam	Te/Cum	1.62
2	Upper Khandia	Te/Cum	1.63
3	Lower Khandia	Te/Cum	1.62
<b>D.</b>	<b>DRILLING CATEGORY</b>	Assumed	VIII
<b>E</b>	<b>EXCAVATION CATEGORY</b>	Assumed	Cat.III
			Cat. IV
<b>II</b>	<b>OVERBURDEN</b>		
1.	OB Thickness		
i	Above Khandia III/IV	M	0-30.00
ii	Parting between Khandia III/IV and upper Khandia	M	7.99-19.94
iii	Parting between upper Khandia	M	0.61-6.50

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	and Lower Khandia		
3.	Drilling Category	Assumed	II-X
4.	Excavation Category	Assumed	Cat. III
			Cat IV
5.	O.B Volume weight	T/cum	2.40
<b>III</b>	<b>QUARRY PARAMETERS</b>		
1.	Maximum strike length along quarry floor	M	1275
2.	Maximum length of quarry along dip at quarry floor	M	435
3.	Maximum Depth of quarry	M	70
4.	Area of excavation	Sq km	0.40

**Kabribad OC: Seamwise details of Geological vis-à-vis Mineable Reserves :**

Seam	Avg Thickness (m)	Net Geological Reserve (MT)	Mineable reserve (MT)
Khandiha II Top	2.91	1.137	0.821
Khandiha II Bot	2.60	1.094	0.732
Khandiha I Top	4.11	2.146	1.290
Khandiha I Bot	2.40	1.373	0.757
<b>Total</b>		<b>5.750</b>	<b>3.600</b>

**LAND DETAILS :**

**Khata No.:-**

**Chilga: - 1,21,22,29**

**Chunjka: -2,19,220**

**Akdoni Khurd: -75,145,60,204,135,216,1**

**Khandiha:1,2,3,5,6,7,8,9,10,11,13,14,16,17,18,19,20,21,22,23,24,25,26,28,29,30,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,90,91,92**

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**Plot No.:-**

**Chilga:** - 204(P),205(P), 206, 207(P),214(P), 215(P), 240(P), 254(P), 255(P), 256(P), 257(P),258, 259(P),260 to 275, 276(P),277,278,279(P),284(P),287,289

**Chunjka:** - 1(P), 2(P), 222, 224(P),225(P), 226(P),227(P),1233

**Akdoni Khurd:** - 1426(P), 1427, 1428(P),1429, 1430(P),1431(P), 1432 to 1474, 1475(P), 1476(P), 1477(P), 1492(P), 1501(P),1502(P),1503(P)

**Khandiha:-** 1(P), 2(P),13(P), 14(P), 15(P), 16(P), 24(P), 27(P), 28(P), 30 to 34, 35(P), 36 to 49, 50(P),52(P), 54(P), 58(P), 60(P), 61(P), 62(P), 66(P), 74(P),75(P), 76 to 117,118(P),119(P),120(P), 121(P),125(P),127(P),128(P),130(P),132(P),133(P),134(P),135(P),136 to 149, 150(P),151 to 235, 236(P), 237,238(P), 239(P), 242(P), 243(P), 244 to 396, 400 to 409, 411, 412, 415(P), 416

**STATUTORY CLEARANCES :**

1	LOI/Lease docs	:	Land has been Transferred to National Coal Development Corporation (NCDC)
2	CO	:	The CO, Giridih Sadar vide letter no. 726, dated 01.08.2022 has clarified that some of the plots within the project area are recorded as "Jungal - Jhari" in Khatiyon / Revenue record.
3	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 1550, dated 16.08.2022 certified that the said project is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
4	DFO Forest Distance	:	DFO, Giridih East Division vide letter no. 1922, dated 09.06.2022 certified that the distance of reserved / protected forest is less than 250 m from the existing project site. The DFO, Giridih East Division also informed vide memo no. 3401, dated 24.09.2022 that the plots belong to the Jungal - Jhari are broken prior to Forest (Conservation) Act, 1980.
5	Mine Plan Approval	:	Ref No.:- CS/BM/510/2022/62, Dated:- 22.02.2022.
6	Public Hearing	:	Public Hearing conducted on 26.02.2022
7	Terms of Reference (ToR)	:	<b>Violation Terms of Reference (ToR)</b> granted by MoEF&CC, Govt. of India vide F.No. 23-1/2020-IA.III, dated 27.04.2021.

**During the presentation the following documents were sought :**

- Clarification from DFO, Giridih East Division that Forest (Conservation) Act, 1980 is applicable or not for this project in respect of the plots which belong to the Jungal - Jhari category but are broken prior to Forest (Conservation) Act, 1980 .



- ii. Calculation of OB dump to be revised.
- iii. Land use plan to be revised.
- iv. Air quality impact should be readdressed.
- v. Water balance diagram to be revised.
- vi. Details with respect to number of RWH pits to be provided.
- vii. Proposed water pollution control measures to be revised.
- viii. Soil analysis to be reconducted.
- ix. Time bound action plan alongwith budgatory provisions for the issues raised during public hearing to be provided.
- x. Presentation to be revised as per ToR points.
- xi. Revised remediation plan and natural & community resource augmentation plan to be submitted.
- xii. Need based socio economic study to be conducted and included in revised EIA/EMP report.

**All the above requirements to be included in a revised final EIA/EMP report and submitted for re-consideration.**

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**2. Selected Dhori (Lower) Open Cast Mine of M/s Central Coalfields Limited, Village :Turio, Makoli, Tarmi, Tehsil : Bermo, Distt. : Bokaro, Jharkhand (211.82 Ha).**

**(Proposal No. : SIA/JH/CMIN /402680/2022)**

**Name of the consultant: CMPDI, Kanke Road, Ranchi**

This is a new project which has been taken for appraisal on 02.11.2022.

**Background and Executive Summary :**

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 amendments thereafter. For this purpose the Project Proponent has submitted the prescribed Form - I & PFR the proposed project falls under item 1 (a) (i) Mining of Minerals (Coal) as per EIA Notification, 2006.

Selected Dhori GoM is a brown field project which has been under operation since nationalization. The project was accorded EC vide letter no. F.No. 23-80/2018-IA.III (M) dated 27.04.2020 for a mine life of 02 years involving extraction of coal reserves from upper seams i.e. Seam VI to X, which are on the verge of exhaustion.

Therefore, it is proposed to tap the lower Karo V and Karo III seams of Selected Dhori Project. The lower seams (Karo-V and Karo-III) have an estimated coal reserve of around 10.72 Mte, which can add eight years to the life of mine at rate of proposed production capacity of 2 MTPA within the project area of 211.82 Ha. Accordingly, the Mining plan and Mine closure plan of Selected Dhori

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(Lower) OCM within the project area of 211.82 Ha has been prepared and was approved by CCL Board in its 509<sup>th</sup> Meeting held on 09.12.2021.

The mineable reserves available in Selected Dhori GoM (Lower Seams) is a high-grade coking coal of washery grade-III. Extracting coal from this mine would help in bridging gap between the energy needs and the supply of coal.

This project has been a major economical source to the nearby villagers. This project, when in operation, provides direct employment to around 1038 people and indirect employment to 1500 villagers. Thus, this project has been playing a major role in the socio-economic upliftment of the nearby villagers.

The project falls in the East Bokaro Coalfields, Bermo CD Block located in Bokaro District of Jharkhand. The project falls within latitudes 23° 45' 30.50"N to 23° 46' 33.91"N and longitudes 86° 01' 35.77"E to 86° 02' 43.64"E and falls in the Survey of India Toposheet no. 73 I/1.

The Gomoh-Barkakana loop line of the Eastern Railway passes adjacent to the area. The nearest railway Station 'Phusro' on the Barkakana-Gomoh loop line is about 2 km to the west of the area. The area is well connected by an all-weather Phusro-Dumri metalled road up to the existing Tarmi opencast project of CCL. The block is about 30km from Bokaro, about 80km from Dhanbad & about 110 km from Ranchi. The nearest commercial airport is situated at Ranchi.

The Selected Dhori block represents rugged topography being traversed by a major flat-topped hill, some isolated hillocks and dumps of existing and old quarries. The general elevation within the block lies between 213 m to 326 m above mean sea level. The ground slopes generally from north to south in the project area.

The balance mineable reserve of project within the quarry area of 179.44 Ha is 10.72 Mte for life of 8 years. The mineable reserves available is a high-grade coking coal of washery grade-III. Proposed seams to be worked in the project are Karo VI to X combined, Karo V and Karo III. Final depth of the quarry will be 120 meters.

Total overburden quantities estimated for the proposed project is 66.00 Mcum of OB. Out of which about 9.72 Mcum of OB has been proposed to be rehandled from 4th year onwards. All the OB removed will be backfilled within the quarry itself. The proposed dump height is maximum 60m from immediate surface level. Total two decks of height 30m each leaving 30m wide berms on each deck have been proposed and the final stage dump will attain a maximum RL of 270m. Coal produced from the project is transported to nearby Tarmi railway siding for onward transportation to projects.

**The proposed Pre-mining & Post-Mining Land Use is given below:**

SN	Land Use	Area in Ha	Post Mining Land Use	Area in Ha
1	Quarry	179.44	Internal dump reclaimed with Plantation	151.51
			void filled with water	27.93
2	Tisri Nala and Joria Nala	1.48	Tisri Nala and Joria Nala	1.48

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3	Road & Infrastructure	5.06	Infrastructure for future use	5.06
4	Embankment	1.69	Plantation on Embankment	1.69
5	Green Belt & Safety Zone	24.15	Plantation on Green Belt & Safety Zone	24.15
<b>Total</b>		<b>211.82</b>	<b>Total</b>	<b>211.82</b>

The peak industrial water demand for the project was projected as 1013 cum/day. The domestic water demand (colony + industrial buildings) was projected as 870 cum/day. Thus, the total water requirement is 1883 cum/day.

The capital investment for the project is approximately Rs. 197.71 Crore.

This project has been a major economical source to the nearby villagers. This project, when in operation, provides direct employment to around 1038 people and indirect employment to 1500 villagers. Thus, this project has been playing a major role in the socio-economic upliftment of the nearby villagers. Further, this project has been effectively contributing to the developmental activities in nearby villages through CSR and other means.

#### LAND DETAILS :

Mouza	Thana no.	Khata No.	Plot No.
Makoli	69	1	114/119
		12	114/118
Turio	70	34	1 & 289
Tarmi	71	52	1

The Mining plan and Mine closure plan of Selected Dhori (Lower) OCM within the project area of 211.82 Ha has been prepared and was approved by CCL Board in its 509<sup>th</sup> Meeting held on 09.12.2021. The existing & proposed configuration of the project is summarized below :

Sl. No.	Particular	Existing Configuration as per EC dated: 27.04.2022	Proposed Configuration as per Present Proposal	Remarks
1	Peak Capacity	11 MTPA	2 MTPA	--
2	Seams Proposed to be mined out	Seam VI to Seam X	Seam III to Seam X	Inclusion of lower seams from Seam III to Seam V
3	Balance Life	2 Years	8 Years	Increase in balance life due to reduction in peak capacity & addition of lower Seam
4	Overburden	3.04 Mcum	66 Mcum	Increase in Total OB

				due to addition of lower Seam
5	Mineable Reserve	12.32 MT	10.72 MT	--
6	Project Area	264.85	211.82	Reduction in area due to removal of un-diverted forest land
7	Stripping Ratio	0.25 Cum/T	6.16 Cum/T	


In addition, it is also proposed to amend condition no. 5 (i) of the Environmental Clearance of Selected Dhori GoM (11 MTPA/ 264.85 Ha) related to NCRAP of the project.

Sl. No.	Existing Condition as per EC dated: 27.04.2022	Proposed Configuration as per Present Proposal	Remarks
1	Drinking Water Facility (Construction of bore wells with pressure filters and water towers) in 20 villages at a cost of Rs 40 Crores	The fund will be diverted into a corpus for sustainability of Sports and Educational Complex (30 Crores and beautification of three ponds in Dhori Area (Site Name: Pichri North, Pichri South & Bholia Nagar) (15 Crores)	The said activity needs to be removed as the said work is already being undertaken by Jharkhand State Govt. under the scheme of Jal Jivan Mission. In view of this, the said amount that is Rs 40 Crores is to be transferred to Community Resource Augmentation Plan

### Description of Seams:

Karo VI to X combined has been considered for mining. This seam forms the topmost seam in the proposed mining area. The seam has been mined extensively with an occurrence of fire in the area. Presence of this seam is possible in patches in the proposed mining area. Since its extent and quantity could not be ascertained due to past mining, its reserve has not been assessed. However, the same needs to be mined out along with the underlying seams. Seam IV, Seam II and Seam I. These seams are not mineable due to very low thickness.

Sl.No.	Seam Name	Avg Thickness considered (m)	Thickness range (m)	Geological Reserve (MT)	Mineable Reserve (MT)
1	Karo VI to X	-	57.33-69.28	-	-
2	Karo V	3.00	2.92-4.93	7.01	4.51
3	Karo IV	-	0.18-1.15	-	-
4	Karo III	4.00	3.25-7.66	12.75	6.21
5	Karo II	-	0.17-1.25	-	-

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6	Karo I	-	0.30-0.40	-	
	TOTAL			19.76	10.72

### Proposed Calendar Programme of Production :

The summarized mining schedule for coal extraction and corresponding overburden load for the project, annual coal & OB production schedule has been provided in the table below :

Period	Year	Coal Production (Mt)	OB Removal (Mcum)	Stripping Ratio (cum/te)
Capacity built-up	1	0.50	3.70	7.41
	2	1.00	7.41	7.41
	3	1.50	10.18	6.79
Production	4	2.00	12.36	6.18
	5	2.00	11.40	5.70
	6	2.00	11.43	5.72
Tapering	7	1.20	6.66	5.55
	8	0.52	2.85	5.49
<b>TOTAL</b>		<b>10.72</b>	<b>66.00</b>	<b>6.16</b>

### Power Requirement:

It is envisaged that this project will receive power at 33 kV from Bokaro Thermal Power Station (BTPS) of DVC. For this, two nos. existing 33 kV overhead lines from BTPS to B&K Main-sub-station shall be extended up-to proposed quarry. A 33 kV energy meter shall be installed for recording its energy consumption. Approximate distance of the quarry from B&K Sub-station is approximately 5 km.

Further, it is proposed to establish 1 no 2 X 5 MVA, 33/6.6 kV sub -station with provision for 2 nos. incoming 33 kV feeders and 12 nos. outgoing 6.6 kV feeders for supply of power to different power consuming equipment of the project.

### Water Requirement:

The peak industrial water demand for Selected Dhori GoM (Lower Seams) was projected as 1013 cum/day. The domestic water demand (colony + industrial buildings) was projected as 870 cum/day. Thus, the total water requirement is 1883 cum/day.

Proposed source of water is from mine water of Selected Dhori Quarry & from Integrated Water Supply System (IWSS). NOC from CGWA has been granted vide no: CGWA/NOC/MIN/ORIG/2021/13591 Dated:01.11.2021 for a permitted quantity of 2841 KLD.

The proposed land use for the project is given below:

Sl. No.	Land Use	Area in Ha
1	Quarry	179.44
2	Tisri Nala and Joria Nala	1.48

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3	Road & Infrastructure	5.06
4	Embankment	1.69
5	Green Belt & Safety Zone	24.15
<b>Total (in Ha)</b>		<b>211.82 Ha</b>

**STATUTORY CLEARANCES :**

1	LOI/Lease docs	:	Land of SDOCM has been partially vested through Coal Mines Nationalization Act and Partially acquired through CBA Act.
2	CO	:	The CO, Chandrapura (Bokaro) vide letter no. 875, dated 09.09.2022 and CO, Bermo (Bokaro) vide letter no. 556, dated 05.09.2022 have mentioned the plot nos. of the project are recorded as "Jungle Jhari" in R.S. Khatiyar & Register II.
3	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 1906, dated 24.09.2022 certified that the said project is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
4	DFO Forest Distance	:	DFO, Bokaro Forest Division vide letter no. 2788, dated 30.09.2022 certified that the applied plots of proposed project site is forest land.
5	Mine Plan Approval	:	Ref No.:- CS/BM/509/2022/32, Dated:- 03.01.2022.
6	CGWA	:	NOC for Ground Water Abstraction vide NOC no. CGWA/NOC/ORIG /2021/13591, dated 01.11.2021.
7	Diversion of forest land	:	<ul style="list-style-type: none"> <li>i. Stage-I granted MoEF, Govt. of India vide F. no. 8-122/90-FC, dated 03.01.1992 for area 143.05 ha.</li> <li>ii. Stage-II granted MoEF, Govt. of India vide F. no. 8-122/90-FC, dated 01.07.1996 for area 143.05 ha.</li> <li>iii. Stage-I granted MoEF, Govt. of India vide F. no. 8-69/2004-FC, dated 10.09.2004 for area 69.183 ha.</li> <li>iv. Stage-II granted MoEF, Govt. of India vide F. no. 8-69/2004-FC, dated 02.03.2009 for area 69.183 ha.</li> <li>v. Re-application for diversion of forest land vide proposal no. FP/JH/MIN/40575/2019, dated 17.05.2021 for area 143.05 ha.</li> </ul>

**During the presentation the following documents were sought :**

- i. Self certified compliance report of previous Environmental Clearance.



The Project Authorities have submitted the above mentioned document.

The Project Authorities have requested for waiver of Public Hearing. The present EC dated 27.04.2020 has been granted by MoEF&CC, Govt. of India based on Public Hearing conducted on 27.08.2016. After due deliberations that the present proposal is for lesser production capacity and area thus the Committee is of the view that the Public Hearing is recommended for waiver.

Based on the information contained in the documents submitted and the presentation made before the State Level Expert Appraisal Committee (SEAC) during its meetings held during 02, 03, 04 & 05.11.2022, the Committee recommends for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure I alongwith the following specific conditions

:

- I. Cumulative EIA / EMP study to be carried out for all the mining activity existing in the study area.
- II. Site inspection report by the Regional Office, Ranchi of MoEF&CC, Govt. of India vide letter no. 103-558/ROR-2020/502 dated 26.08.2022 states that some of the conditions of the EC dated 27.04.2020 are either not complied or patially complied. Before considering for grant of EC all the conditions of the EC dated 27.04.2020 must be complied.

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3. Topailore Iron Ore Mining Project of Gua Ore Mines of M/s Steel Authority of India Ltd., Village : Topailore, Tehsil. : Noamundi, Distt. : West Singhbhum, Jharkhand (14.15 Ha).

(Proposal No. : SIA/JH/MIN/293216/2022)

**Project Category :** Application for Amendment in Environment Clearance for Iron Ore Production: 300000 Cu.M. / year i.e. 600000 TPA (Project category B).

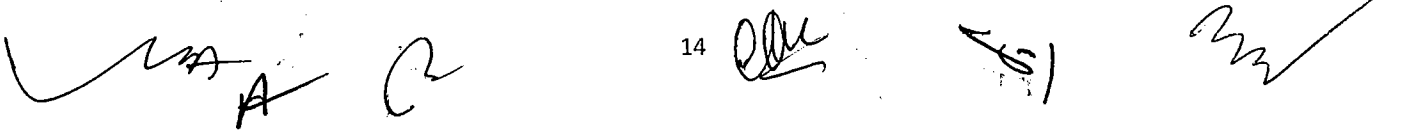
**Name of the consultant:** No consultant was involved. The presentation was done by authorities of SAIL- Bokaro Steel Plant.

This is a existing project which has been taken for appraisal on 02.11.2022 under clause 7 (ii) of the EIA notification, 2006.

**Project Summary :**

Topailore Iron Ore Mine, covering an area of 14.15 ha located in Gua Village of Noamundi Tehsil, Dist: West Singhbhum (Jharkhand) is a part of Gua Ore Mines under Bokaro Steel Plant of SAIL. There are total four mining leases under Gua Ore Mines viz Durgaiburu Lease (for Iron Ore), Jhillingburu-I Lease (for Iron Ore & Manganese Ore), Jhillingburu-II Lease (Iron Ore & Manganese Ore) and the Topailore Lease (for Iron ore).

The Topailore mining lease was granted for a period of 30 years from 09.03.1970 to 08.03.2000. Subsequent to promulgation of MMDR Amendment Act, 2015 and Mineral (Mining by Govt. Company) Rules 2015, Govt. of Jharkhand extended the lease period of Topailore mining lease



under MMGC Rule 2015 till 08.03.2040 vide letter no. Kh. Bhu. (Chai)-04/05/1748 dated 23.10.2019 and lease deed executed on 17.01.2020.


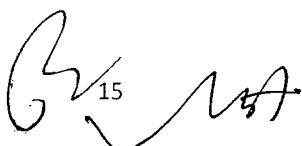


The lease area forms part of Survey of India Toposheet bearing no. 73F/8 (F45H8) and is bounded by latitudes from 22°12'35.788"N to 22°12'45.184"N and from Longitudes 85°22'0.336"E to 85°22'19.726"E. The entire mining lease falls under Mining Zone as per the MoEFCC approved the Management Plan for Sustainable Mining (MPSM) of Saranda and Chaibasa Forest Divisions.

There is no geological reserve in the Topailore Mining Lease, but part of the Iron Ore Fines Dump (6.6 MT) of Gua Ore Mines is falling under Topailore Mining lease. SAIL had initially obtained EC for Topailore Iron Ore Mining Project from the State Level Environment Impact Assessment Agency (SEIAA), Jharkhand vide letter no. EC/SEIAA/2015-16/694/2015/1291 dated 17/08/2015 for excavation of iron ore fines @ 0.6 million tonnes per annum (MTPA) from the fines dump & processing through proposed Beneficiation and Pelletisation plants to be set up in Gua Ore Mines for processing of iron ore from the both Duarguiburu & Topailore Iron Ore Mining Leases. However, mining operations in the Topailore Mining Lease could not be started due to non-availability of Stage-II forest clearance and delay in installation of Beneficiation and Pelletisation plants at Gua Ore Mines. Subsequent to receipt of permission for sale of iron ore from SAIL Captive Mines in open market by Ministry of Mines, GoI since Sept., 2019, the EC of Topailore ML was amended by MoEFCC vide Letter No. J-11015/272/2011-IA.II (M) dtd 19.05.2020 for excavation of iron ore fines @ 0.6 MTPA for selling in open market under para 7(ii) of EIA Notification 2006 by transporting iron ore through internal road to Gua Public Siding and final dispatch by rail.

Off late iron ore demand from SAIL Steel Plants has been increased as Modernization & Expansion Projects of the SAIL Steel Plants has been completed. In order to cater the immediate need of iron ore demand from the SAIL Plants, SAIL is intending to dispatch the iron ore to SAIL Steel Plants from Topailore ML in addition to dispatches against sale in open market from Gua Public Railway Siding / SAIL's Gua Private Railway Siding as per the requirement without involving any change in process / product mix as permitted in EC grant order's dated 17.08.2015 and subsequent amendment dated 19.05.2020. The excavated iron ore fines from the Topailore Mining Lease shall be transported through private roads (SAIL owned) to the Gua Public Railway Siding / SAIL's Gua Private Railway Siding for final dispatch by rail.

Stage-II FC for diversion of entire forest land over 14.15 ha granted by Integrated Regional Office, MoEF&CC, Ranchi on 04.10.2019. Forest Land release order has also been issued by GoI vide letter dated 09.06.2022. Indian Bureau of Mines (IBM), Ranchi has already approved Review of Mining Plan for the Mining Lease for the period from 2022-23 to 2026-27 vide letter No. RAN/WSB/Fe/MP-17/2021-22 dated 22.12.2021 for use of iron ore for both captive as well as sale on open market.

Accordingly, SAIL submitted an application for amendment of EC of Topailore Mining Lease in the prescribed format, online **Form-4** along with addendum to EIA/EMP Report in PARIVESH PORTAL to SEIAA, Jharkhand vide proposal no. SIA/JH/MIN/293216/2022 dated 21.10.2022 & 28.10.2022 for Change in End-use of Mineral without increase in production (0.6 MTPA) under para 7 (ii) of EIA Notification 2006 and amendments thereon. The proposal was placed and deliberated in the

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98<sup>th</sup> Meeting of State Level Expert Appraisal Committee, Jharkhand held on 02.11.2022. The amendments sought by the project proponent is as follows:

Plant / Equipment / Facility	Existing, Configuration	Proposed Configuration	Remarks, if any
Production Capacity	0.6 MTPA of Iron ore	0.6 MTPA of Iron ore	No Change
Lease Area	14.15 ha	14.15 ha	No Change
End use of Mineral	Selling in open market.	Captive and selling in open market as per the requirement.	Facilitate early liquidation of mineral and thereby minimize pollution.
Transportation up to Railway Sidings	Through internal roads to Gua Public Siding (3.5 km).	Through internal roads to Gua Public Siding (3.5 km) and SAIL's Gua Private Railway Siding (1.5 km) as per the requirement.	Only through SAIL's internal roads. No public road is involved.
Final Dispatch to end users	By rail from Gua Public Railway Siding.	By rail from Gua Public Railway Siding and SAIL's Gua Private Railway Siding as per the requirement.	Through rail only.

The project proponent submitted that environmental quality covering ambient air, noise and water are being monitored regularly and found that the results are within in the prescribed quality standards. Further, project proponent submitted that the proposed change in end of mineral and dispatch the iron ore fines through Gua Public Railway Siding / SAIL's Gua Private Railway Siding will help in early liquidation of the iron ore and finally eliminate environmental issues associated with the storage of the fines. The proposed environmental management measures to control dust emissions and surface runoff control measures will improve and maintain the environmental quality within in the prescribed environmental standards. It is also submitted that transporting the iron ore from the Topailore Mining Lease to Gua Public Siding and SAIL's Gua Private Railway Siding is only through SAIL's internal roads and there is no involvement of public roads.

**Project and Location Details :**

Sl	Parameter	Details
1	Project Name	: Topailore Iron Ore Mining Project of Gua Ore Mines of SAIL Bokaro Steel Plant (Lease Area-14.15 ha)
2	Lessee:	: Steel Authority of India Limited- Bokaro Steel Plant Gua Ore Mines
3	Lease Address	: Topailore Iron Ore Mining Project Gua Ore Mines Bokaro Steel Plant Steel Authority of India Limited, P.O-Gua

			Dist.- West Singhbhum, Jharkhand Pin:833213
4	Lease Area	:	Ha: 14.15 ha   4
5	Type of Land	:	Total land is in Reserve Forest Land. (Plot/ Khasra no.- Forest Compartment no. G-23 of Ghatkuri Reserve Forest)
6	Project Cost	:	468.3 Lakhs
7	EMP Budget	:	Capital: 175 Lakhs   7
8	CSR / CER Budget	:	Rs. 440.17 Lakhs (Last 5 years for Gua Ore Mines)
9	New or Expansion	:	Not Applicable. This proposal is for Amendment in Environmental Clearance
10	Mineable Reserves	:	Cu.M.: 3257426 Cu. M.   10
11	Mine Life	:	10 years (as per the review of mining plan which may vary after detailed exploration within the lease area)
12	Man power	:	The mine shall employ 45 persons. This comprises of 5 office staff, 7 highly skilled workers, 8 skilled workers, 7 semiskilled workers and 18 unskilled workers. On any given day about 31 persons are expected to be on duty.
13	Water Requirement	:	50 KLD
14	Water Source	:	Industrial water and potable water requirement for the mine is estimated to be maximum 50 m <sup>3</sup> /day which will be met by drawing water from Karo River.
15	DG Set / power	:	As only diesel powered machinery will be deployed at the mine, no electricity will be required for mining. 1.5 kW electrical power will be required for the mine site office, rest shelters canteen etc. The power will be drawn from the grid through the common facilities for the entire Gua Ore Mines complex
16	Crusher	:	Not Applicable as no crushing is involved .
17	Nearest Water Body	:	Karo River
18	Nearest Habitation	:	Gua Village
19	Nearest Rail Station	:	Gua Railway Station-2 Km from Topailore Mining ease
20	Nearest Air Port	:	Ranchi Airport- 250 km
21	Nearest Forest	:	Ghatkuri Reserve Forest
22	Road & Highways	:	NH-215: About 22km south of Topailore Mining lease

#### CO-ORDINATES

1	Latitude	From 22 <sup>o</sup> 12"35.788"N	To -22 <sup>o</sup> 12"44.802"N
2	Longitude	From 85 <sup>o</sup> 22"0.336" E	To -85 <sup>o</sup> 22"19.726"E

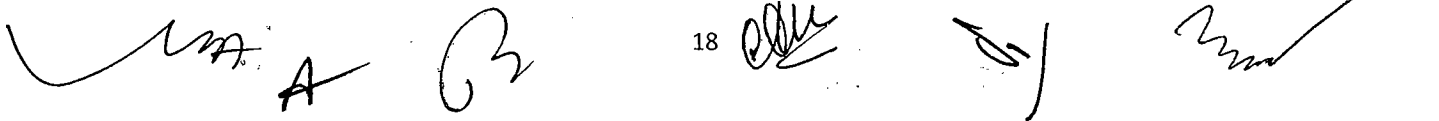
#### LAND DETAILS

1	Total 14.15 ha of Mining Lease area land is Forest Land for which Stage-II Forest Clearance has been obtained vide letter No. 5-JHC092/2009-BHU/3497 dated 4 <sup>th</sup> October, 2019 of
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MoEFCC, Regional Office, Bhubaneswar. Based on the compliance report furnished by the State Govt. of Jharkhand vide letter no. Van Bhumi - 75/2007-5054/Va.Pa. dated 03.11.2016 and letter no. Van Bhumi - 75/2007-3840/Va.Pa. dated 03.10.2019.

**STATUTORY CLEARANCES :**

1	LOI/Lease docs	: Subsequent to MMDR Amendment Act 2015 and promulgation of MMGC Rules, 2015, Govt. of Jharkhand vide letter dated 23.10.2019 extended lease period up to 08.03.2040 covering an area of 14.15 ha. Lease deed executed between GoJ & SAIL on 17.01.2020.
2	CO	: The Circle Officer, Noamundi vide letter no. 206, dated 13.06.2022 has mentioned that the plot no. of the project is under the Jurisdiction of State Forest Department and related document not available in this circle office.
3	DFO Wild Life	: DFO, Saranda Forest Division, Chaibasa (acting WL officer) vide letter dated 08.06.2022 certified that the existing project site is outside Eco Sensitive Zone.
4	DFO Forest Distance	: DFO, Saranda Forest Division, Chaibasa vide letter dated 08.06.2022 certified that the existing project is notified forest land.
5	Gram Sabha	: Conducted on 17.02.2011 for 14.15 ha forest land under Forest Rights Act, 2006.
6	Mine Plan Approval	: Mine is non-operational since 1999. Mining Plan for 0.6 MTPA capacity was approved by IBM on 20.06.2000 for 1 <sup>st</sup> Renewal period. Modification of Approved Mining Plan for the period 2019-20 to 2021-22 was approved by IBM, Ranchi on 26.12.2019. Review of Mining Plan for the period 2022-23 to 2026-27 approved by IBM, Ranchi vide letter no. RAN/WSB/Fe/MP-17/2021-22, dated 22.12.2021.
9	Stage I	: <b>Stage I</b> clearance granted by MoEF, Govt. of India, Regional Office, Bhubaneswar vide letter no. 5-JHC092/2009-BHU, dated 30.08.2013.
10	Stage II	: <b>Stage II</b> clearance granted by MoEF, Govt. of India, Regional Office, Bhubaneswar vide letter no. 5-JHC092/2009-BHU/3497, dated 04.10.2019.
11	Previous EC	: <b>EC granted</b> by SEIAA, Jharkhand vide letter no. EC/SEIAA/2015-16/694/2015/1291, dated 17.08.2015.  <b>Amendment in EC</b> granted by MoEF&CC, Govt. of India vide F.No. J-


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		11015/272/2011-IA.II (M), dated 19.05.2020
12	CTE & CTO	i. CTE granted by JSPCB vide Ref. no. JSPCB/HO/RNC/CTE-8139793/2020/245, dated 19.06.2020. ii. CTO granted by JSPCB vide Ref. no. JSPCB/HO/RNC/CTO-8312053/2020/1190, dated 28.07.2020.

### Working Details

1	Mining Method	: Open cast Mining with Shovel & dumper combination (Excavator with 2cu.m bucket capacity & dumper of 20-30 t capacity)
2	Quarry Area	: 5 years– 11.46 ha Life of Mine – 10 years (as per the review of mining plan which may vary after detailed exploration within the lease area)
3	Waste Generation	: 5 years– Nil Life of Mine – Not Applicable
4	Stripping Ratio	: No Waste Generation
5	Working Days	: 300
6	Benches: size & No	: H= 4m, W=12m, bench slope=70 <sup>0</sup> , bench-3 nos. min- 5nos. max.
7	Elevation of Mine	: 570m AMSL
8	Ground Level Elevation	: 460m AMSL
9	Ultimate Working Depth	: 460m AMSL
10	Water Table	: 400m AMSL
11	Topography of Mine	: Hilly and criss-crossed by seasonal and perennial streams.
12	Explosive Requirement	: NIL- as no blasting involved
13	Diesel/Fuel requirement	: 90 KL/year ( 300 Litres/day) for 20 Te carrying capacity (approx)

### Production Details

Year	Production of Iron Ore (Cum)	Production of Iron Ore(Tonne)	Waste Generation (CuM)	Bench RL in Meters
1 <sup>st</sup>	65210	155199	-	470-478m
2 <sup>nd</sup>	297030	600000	-	478-486m
3 <sup>rd</sup>	297030	600000	-	486-494m
4 <sup>th</sup>	297030	600000	-	494-502m
5 <sup>th</sup>	297030	600000	-	502-510m
<b>Total</b>	<b>1253330</b>	<b>2555199</b>	-	

## Land Use

SL	Pattern	Existing Land Use (Ha)	Proposed Current Plan Period (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Land Usage at Conceptual Stage
1	Mining Area	11.46	11.46	11.46	11.46	11.46
2	Office /Store	0.25	0.63	0.63	0.63	0.63
3	Crusher	-	-	-	-	-
4	Road	0.38	0.38	0.38	0.38	0.38
5	Garland Drain	-	-	-	-	-
6	Safety Zone	-	1.68	1.68	1.68	1.68
7	Settling Tank	-	-	-	-	-
8	Unutilized	2.06	-	-	-	-
	<b>TOTAL</b>	<b>14.15</b>	<b>14.15</b>	<b>14.15</b>	<b>14.15</b>	<b>14.15</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development

SL	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.3 Ha	250 (5 years proposal)
2	Other Reclaimed Area	:	-	-
3	Haul /Approach Road	:	-	-

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

### Solid Waste Management

Waste Generation will be Nil during the life of mine. Dump area proposed for waste storage is not prerequisite. There is only washout fines are deposited over the period so maximum chances to extract fines from the lease. Hence, solid waste from the lease is expected to be negligible.

### Water Quality Management

- Mining is planned to above the ground water table. In case any intersection is likely, mining activities will be stopped 2m above the Ground Water Table.
- The rain water during rainy season will be collected in a pit and shall be use for dust suppression and plantation.Excess water, if any shall be discharged in natural stream after settling of

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suspended particles in the pit. Pump having required capacity will be installed to lift accumulated rain water from working pit and pumped to the settling tank.

- Garland drain shall be made around working pit and the rain water shall be collected in garland drain and allowed to settle in a small pit for settling suspended particles before allowing discharge to natural drainage system. Check Pits and Retaining walls shall be constructed to prevent water flowing into the lease area from outside or from inside the lease area to the outside
- For domestic waste water Septic Tank with Soak Pit shall be provided, discharge from Soak Pit, if any shall be used for plantation.
- It shall be ensured that quality of drinking water for the worker is hygienic and good sanitation system shall be made available.

#### **Air Quality Management**

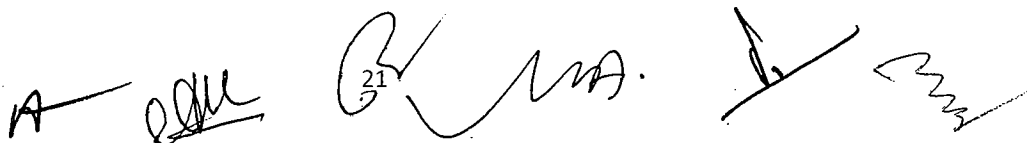
- Dust extractor or wet drilling will not be done because blasting is not essential. All machineries and transport vehicles shall be properly maintained and pollution check will be done once in a year to keep the emissions from machineries and vehicle under control. Records for same to be maintained.
- Water sprinkling will be done on haul road to control emission of dust while transporting minerals and waste. Provision for water spray by tankers on 'kaccha' road shall be done.
- Water sprinkling at loading area shall be done to reduce dust emission and reduction in NOx emission
- Use of personal protective equipment like dust mask etc shall be put in practice
- Ambient air pollution monitoring shall be carried out every six months

#### **Undertakings affirming the following have been submitted:**

- a. No ground water is used for domestic purpose and any mining activities or any other use and therefore undertakes that no ground water will be used for domestic purpose and any mining activities or any other use.
- b. The Boundary Pillars of the Topailore mining lease area will be maintained properly.
- c. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- d. The plantation work will be done as per the approved Mining Plan / Review of Mining plan of Topailore mining lease.
- e. Sufficient water spray using water tankers will be done for effective dust suppression within the Topailore mining lease area and on haul roads.
- f. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records will be maintained.
- g. There is no increase in pollution load due to change in transportation route.

#### **During the presentation the following documents were sought :**

- i. Self certified compliance report of previous EC to be submitted.

The bottom of the page features several handwritten signatures and initials in black ink. From left to right, there is a signature that appears to be 'A', followed by 'RDK', a signature with the number '21' written below it, another signature, and finally a signature that looks like 'S' followed by some scribbles.

The Project Authorities have submitted the above mentioned document.

Based on the discussion held and document submitted by the project proponent, the committee in SEAC meeting held on 02.11.2022, the committee recommended the proposal for amendment in EC w.r.t the following alongwith rest other terms & conditions mentioned in previous EC letter no. EC/SEIAA/2015-16/694/2015/1291, dated 17.08.2015 :

- a) Mining / Excavation of fines from Topailore lease @ 0.6 MTPA for dispatch to SAIL's integrated steel plants for captive consumption and selling in open market as per the requirement keeping total production within the approved EC limit of 0.6 MTPA.
- b) Transportation of excavated fines from the Topailore Mining Lease by using private road (SAIL owned) to Gua Public Railway Siding covering a distance of about 3.5 km for further dispatch by Rail and transportation of excavated fines by using private road (SAIL owned) to SAIL Gua private railway siding covering a distance of 1.5 km for further dispatch by Rail as per the requirement.

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**4. Residential Complex "Dayal Skyline" of M/s Dayal Builders (Prop. : Shri Surender Pal Singh),  
Village : Khayerbani, Town Jamshedpur, Distt. : East Singhbhum, Jharkhand.**

**(Proposal No. : SIA/JH/INFRA2/403054/2022)**

**Name of the consultant: Oceao-Enviro Management Solutions (India) Pvt. Ltd, Ghaziabad**

This is a new project which has been taken for appraisal on 02.11.2022.

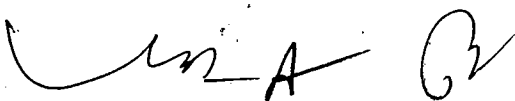
**Project Category :** 8(a) Category B2 – Application for Environment Clearance.

Project is classified as Category 8(a) as per EIA Notification as the built up area is less than 1,50,000 m<sup>2</sup> and development area is less than 50 ha.

The proposed project is construction of Residential Complex "Dayal Skyline" of M/s Dayal Builders, at Mouza: Khayerbani, Town Jamshedpur, District : East Singhbhum, Jharkhand. The total plot area of the project is 10219.24 m<sup>2</sup>. The Built-up area for project is 49690.59 m<sup>2</sup>.

**Background :**

- That Project Proponent has proposed construction of Residential Complex "Dayal Skyline" located at MouzaKhayerbani, Town Jamshedpur, District East Singhbhum, Jharkhand.
- Total plot area 10219.24 m<sup>2</sup> or 2.53 acres. The Built-up area for project is 49690.59 m<sup>2</sup> (including FAR + NON FAR + Services)
- The project consists of 4 towers and a Commercial tower for which application has been submitted for Environment Clearance.
- Approved building drawing from East singhbhumZilaParishad of 4 towers for 49690.59 m<sup>2</sup>



built-up area is under process.

- That, Project Proponent had not started any construction activities in the project part which comes under preview of the environmental clearance.

**Salient features of the project :**

S. No.	Area Details	Area (m <sup>2</sup> )
1	Total plot area	10219.24
2	Permissible Coverage Area	4087.696
3	Proposed Coverage Area	3039.14
4	Permissible FAR Area (3.00)	30657.72
5	Proposed FAR Area (3.00)	30607.74
6	Commercial FAR	1078.12
7	Residential FAR	29529.62
8	Total FAR	30607.74
9	Miscellaneous utilities (Guard room, STP, ETP, etc.)	2000
10	Basement area	9297.33
11	Stilt (Parking)	522.58
12	Residential Non-FAR	7159.82
13	Commercial Non-FAR	103.12
14	Total Non-FAR	19082.85
15	Built up area	49690.59
16	Green Area (25% of Total Area)	2554.81
17	No. of RWH	03
18	Project cost	Rs. 50.00 Crore

**Floor Wise Area Details :**

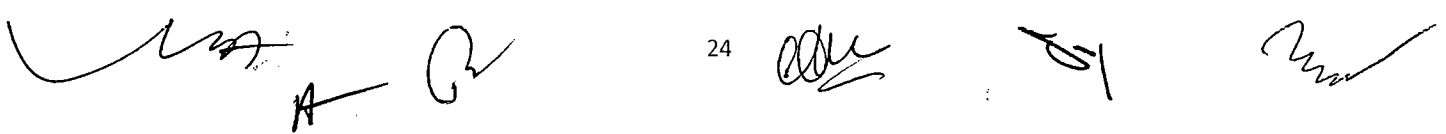
S. No.	Floor	FAR Area (sq.mt.)	Non FAR Area (sq.mt.)	Car Parking	Built-up Area
Tower A	Ground Floor	595.03	49.81	43.41	688.25
	First Floor	626.43	144.94		771.37
	Second Floor	626.43	144.94		771.37
	Third Floor	626.43	144.94		771.37
	Fourth Floor	626.43	144.94		771.37
	Fifth Floor	626.43	144.94		771.37

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Sixth Floor	626.43	144.94		771.37
Seventh Floor	626.43	144.94		771.37
Eighth Floor	626.43	144.94		771.37
Ninth Floor	626.43	144.94		771.37
Tenth Floor	626.43	144.94		771.37
Eleventh Floor	626.43	144.94		771.37
Twelfth Floor	560.13	248.45		808.58
<b>Total</b>	<b>8045.89</b>	<b>1892.6</b>	<b>43.41</b>	<b>9981.9</b>

S.No.	Floor	FAR Area (sq.mt.)	Non FAR Area (sq.mt.)	Car Parking	Built-up Area
Tower B	Ground Floor	557.54	49.97	80.74	688.07
	First Floor	626.43	144.94		771.37
	Second Floor	626.43	144.94		771.37
	Third Floor	626.43	144.94		771.37
	Fourth Floor	626.43	144.94		771.37
	Fifth Floor	626.43	144.94		771.37
	Sixth Floor	626.43	144.94		771.37
	Seventh Floor	626.43	144.94		771.37
	Eighth Floor	626.43	144.94		771.37
	Ninth Floor	626.43	144.94		771.37
	Tenth Floor	626.43	144.94		771.37
	Eleventh Floor	626.43	144.94		771.37
	Twelfth Floor	560.13	248.45		808.58
<b>Total</b>	<b>8008.4</b>	<b>1892.76</b>	<b>80.74</b>	<b>9981.72</b>	

S.No.	Floor	FAR Area (sq.mt.)	Non FAR Area (sq.mt.)	Car Parking	Built-up Area
Tower C	Ground Floor	428.29	26.75	245.62	700.66
	First Floor	568.86	126.09		694.95
	Second Floor	568.86	126.09		694.95
	Third Floor	568.86	126.09		694.95
	Fourth Floor	568.86	126.09		694.95



	Fifth Floor	568.86	126.09		694.95
	Sixth Floor	568.86	126.09		694.95
	Seventh Floor	568.86	126.09		694.95
	Eighth Floor	568.86	126.09		694.95
	Ninth Floor	568.86	126.09		694.95
	Tenth Floor	568.86	126.09		694.95
	Eleventh Floor	568.86	126.09		694.95
	Twelfth Floor				
	<b>Total</b>	<b>6685.75</b>	<b>1413.74</b>	<b>245.62</b>	<b>8345.11</b>

S.No.	Floor	FAR Area (sq.mt.)	Non FAR Area (sq.mt.)	Car Parking	Built-up Area
<b>Tower D</b>	Ground Floor	486.91	27.13	152.81	666.85
	First Floor	572.97	128.29		701.26
	Second Floor	572.97	128.29		701.26
	Third Floor	572.97	128.29		701.26
	Fourth Floor	572.97	128.29		701.26
	Fifth Floor	572.97	128.29		701.26
	Sixth Floor	572.97	128.29		701.26
	Seventh Floor	572.97	128.29		701.26
	Eighth Floor	572.97	128.29		701.26
	Ninth Floor	572.97	128.29		701.26
	Tenth Floor	572.97	128.29		701.26
	Eleventh Floor	572.97	128.29		701.26
	Twelfth Floor				
	<b>Total</b>	<b>6789.58</b>	<b>1438.32</b>	<b>152.81</b>	<b>8380.71</b>

S.No.	Floor	FAR Area (sq.mt.)	Non FAR Area (sq.mt.)	Car Parking	Built-up Area
<b>Commercial Block</b>	Ground Floor	269.53	25.78		295.31
	First Floor	269.53	25.78		295.31
	Second Floor	269.53	25.78		295.31
	Third Floor	269.53	25.78		295.31

	<b>Total</b>	<b>1078.12</b>	<b>103.12</b>		<b>1181.24</b>
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Khata no. & Plot no. of project:

Khata No.	Plot No.
408	1530, 182
114	1527
115	1528, 1532
116	1531

Latitude & Longitude:

S.No.	Corner No.	Latitude	Longitude	Site Elevation (in meters)
1	1	22°44'11.58" N	86°16'20.15" E	136.62
2	2	22°44'10.75" N	86°16'22.29" E	138.71
3	3	22°44'10.05" N	86°16'24.06" E	140.43
4	4	22°44'09.05" N	86°16'23.86" E	138.26
5	5	22°44'07.58" N	86°16'23.28" E	139.5
6	6	22°44'08.20" N	86°16'21.28" E	137.57
7	7	22°44'08.96" N	86°16'18.77" E	135.29
8	8	22°44'08.27" N	86°16'18.45" E	134.45
9	9	22°44'08.26" N	86°16'18.30" E	134.65
10	10	22°44'10.23" N	86°16'18.37" E	135.09
11	11	22°44'10.78" N	86°16'19.30" E	135.89
12	12	22°44'10.72" N	86°16'20.00" E	136.52

Population Breakup:

S.No.	Particulars	Area/DU	No.of Persons	Total Population
1	Residents	270	@5 person per unit	1350
2	Commercial	1144.2	1 person per 10sqm	114.42
Total Population				1464.42 = 1465
3	Staff		@10 % of total population	147
4	visitors		@10 % of total population	147
Total				1759

Site Surroundings :

S.No	Particulates	Name of Places	Distance (Km)	Direction
1.	Nearest Airport	Sonari Airport	13.49	NW
2.	Nearest Railway	Govindpur PH	1.38	NW

	Station			
3.	Nearest Bus Stand	Govindpur Bus Stand	1.88	NW
		Rahargore Bus Stand	3.75	WNW
4.	Nearest State Highway/ Any other road	S.H. 6	7.81	WSW
5.	Nearest National Highway	N.H. 18	7.74	NE
6.	Nearest School/College	S.D. Public School	2.19	NW
		Rajendra Inter College	2.18	NW
7.	Nearest Temple/Masjid	Hari Mandir	1.32	NW
		Shiv Mandir	1.51	NW
		Masjid-E-Quba	3.14	N
		Masjid-E-Raza	3.53	N
8.	Nearest Hospital	Tata Motors Hospital	3.89	NNW
		Apex Hospital	7.42	NNW
9.	Nearest Police Station	Telco Police Station	5.05	NW
		Birsanagar Police Station	6.05	NNW
10.	Nearest Fire Station	Tata Motors Fire Station	5.18	NW
		West Plant Fire Station	8.73	NW
11.	Commissioner Office	District Labour Commissioner Office (DLC)	8.88	NW
12.	Gram Panchayat	Khakripara Gram Panchayat	0.81	W
13.	Nearest Pond	Hembrom Pond	1.44	ESE
14.	Nearest River / Nallah / Canal	Subarnarekha River	3.64	E
15.	Wild Life Sanctuary	Jamshedpur Ji Tata	17.86	NNW
16.	Zoological Park	Tata Steel Zoological Park	11.62	NW
17.	Nearest Defense Installation	106 RAF/CRPF Camp	6.34	W

#### Water Requirement:

The water requirement will be met by Municipal Supply. The total water requirement for operational phase is approx. 216 KLD. Fresh water requirement is approx. 137 KLD.

#### Calculations for Daily Water Demand :

S. No.	Particulars	Occupancy/ Area/ No's	Fresh Water Demand		Treated Water Demand		Total
			LPCD	Quantity	LPCD	Quantity	
1	(Residential+)	1465	90	131.85	45	65.93	198

	Commercial)						
2	Staff	147	25	3.68	20	3	7
3	Visitors	147	5	1	10	1.5	2.5
4	Horticulture	2554.81	NIL	NIL	3l/sqm	8	8
<b>Total Water Requirement</b>						<b>78.43 ~ 79</b>	<b>216</b>

**Summary of Water and Waste water :**

S. No.	Particulars	In KLD
1	Total Water Requirement	216
2	Water Requirement met by Fresh Water	137
3	Water Requirement met by Treated Water	79
4	Flushing requirement met by treated water	71
5	Wastewater Generated ( 80% of Fresh + 100% Flushing)	(109+71) = 180
6	STP Capacity (20% higher than the wastewater generated)	216

**Power Requirement :**

There is requirement will be 3000 kW power supply. There is provision of three DG sets of total capacity 1500 KVA (3x 500KVA). The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion.

**Calculation of Solid Waste generation :**

S. No.	Category	Kg per capita per day	Waste generated (kg/day)
1	(Residential+ Commercial)	1465 @ 0.5 kg/day	732.5
3	Staff	147 @ 0.25 kg / day	36.75
4	Visitors	147 @ 0.15 kg /day	22.05
5	Landscape waste	0.63 @ 0.2 kg/acres	0.13
<b>Total Solid Waste Generated</b>			<b>791.43 kg/day</b>

**STATUTORY CLEARANCES :**

1	DFO Forest Distance		DFO, Jamshedpur Forest division vide letter no. 1591, dated 27.07.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
2	DFO wildlife	:	DFO, Dalma Elephant Project vide letter no. 1179, dated 18.08.2022 certified the said project is out of Eco Sensitive Zone of Dalma Wildlife Sanctuary.
3	CO certificate	:	The CO, Jamshedpur, East Singhbhum vide letter no. 1476, dated 30.07.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyani.
4	AAI NOC	:	Airport authority of India issued NOC vide NOC ID JAMS/EAST/B/082022/693484, dated 15.09.2022.
5	Building Plan	:	Conceptual Plan submitted.

**Based on the presentation made and information provided, the Committee decided that the proposal for Residential Complex "Dayal Skyline" of M/s Dayal Builders (Prop. : Shri Surender Pal Singh), Village : Khayerbani, Town Jamshedpur, Distt. : East Singhbhum, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II alongwith the following specific conditions :**

- I. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.
- II. All raw material to be stored only under covered shed.
- III. PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.
- IV. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load. It is to be achieved by solar panels etc meeting ECBC norms.
- V. Trees should be developed & maintained not less than 15% of project area.
- VI. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.
- VII. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- VIII. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.
- IX. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.



- X. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.
- XI. Sufficient number of EV fast charging points to be installed.

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**5. Singhpur Stone Deposit of M/s Maa Mundeshwari Stone Mines, Village : Singhpur, Tehsil : Nagri, Dist. : Ranchi, Jharkhand (1.715 Ha).**

**(Proposal No. : SIA/JH/MIN /402564/2022)**

**Name of the consultant: Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar.**

This is a new project which has been taken for appraisal on 02.11.2022.

**Project Category :B2 – Application for Environment Clearance**

**EC Application for : Total Excavation - Stone – 300 TPD**

**Annual Production – 32143m<sup>3</sup>/90000 TPA**

**Gritty soil 5474 m3 in life of mine (5 years).**

**Project and Location Details :**

Sl.	Parameter	Details
1	Project Name	: Singhpur Stone Deposit
2	Lessee:	: M/s Maa Mundeshwari Stone Mines, Proprietor- Smt. Neelam Singh
3	Lease Address	: At: Village - Singhpur,P.S. – Nagri, District – Ranchi, Jharkhand.
4	Lease Area	: Ha:1.715                      Acres:4.24
5	Type of Land	: Non-Forest – Rayati Land
6	Project Cost	: Rs. 101.85 Lakhs
7	EMP Budget	: Capital: Rs. 5.90Lakhs                      Recurring: Rs. 3.25Lakhs/ year Monitoring cost: Rs. 0.90 Lakhs/year
8	CSR / CER Budget	: Rs. 2.03 Lakhs
9	New or Expansion	: New
10	Mineable Reserves	: 157563 cum.                      Tonnes:441176
11	Mine Life	: 5 yearonly
12	Manpower	: 32 Person
13	Water Requirement	: 5.99KLD (Drinking: 0.80KLD, Dust Suppression & Plantation: 5.19KLD)
14	Water Source	: Supply Tankers
15	DG Set / power	: Not Proposed/Not Applicable

*(Handwritten signatures and marks)*

16	Crusher	:	Not proposed/Not Applicable
17	Nearest Water Body	:	Hatiya Reservoir at 1.12 Km. NE Subernrekha River at 2.43 Km. N
18	Nearest Habitation	:	Jaratoli 0.38 km NE direction from the mine site.
19	Nearest Rail Station	:	Balasiring Railway Station 5.16 km from the mine site.
20	Nearest Airport	:	Birsa Munda Airport, Ranchi 9.45 km from the mine site.
21	Nearest Forest	:	Protected Forest 1.00 Km S Protected Forest 1.80 Km SE Protected Forest 1.70 Km SW Protected Forest 2.00 Km NW Protected Forest 3.60 Km NW
22	Road & Highways	:	Ranchi Ring Road at 0.8 km E direction from the mine site.

#### CO-ORDINATES

1	Latitude	:	From 23°16' 31.43" N	To 23°16' 37.27" N
2	Longitude	:	From 85°13' 47.30" E	To 85° 13' 54.23" E

#### LAND DETAILS :

Khata No.	Plot No.
71	790 & 792
74	784

#### STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Ranchi vide letter no. 617/M, dated 28.07.2022.
2	CO	:	The CO, Nagri vide letter no. 847(ii), dated 07.07.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatyan & Register II.
3	DMO	:	DMO, Ranchi vide memo no. 665/M, dated 18.08.2022 certified that no other mining area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Ranchi vide letter no. 734, dated 24.08.2022 certified that the proposed project site is outside Eco Sensitive Zone.
5	DFO Forest Distance	:	DFO, Ranchi Division vide letter no. 3736, dated 02.09.2022 certified that the distance of reserved / protected forest is more

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			than 250 m from proposed project site.
6	DSR	:	The DC – cum – District Magistrate, Ranchi vide letter no. 672/M, dated 18.08.2022 has informed that this project is part of District Survey Report (DSR) of Ranchi district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Nagri vide Letter no. 450 (ii), dated 11.07.2022 informed that Gram Sabha conducted on 05.07.2022.
8	Mine Plan Approval	:	District Mining Office, Ranchi vide Memo No. 649/M, dated 12.08.2022

### WORKING DETAILS

1	Mining Method	:	Opencast Semi-Mechanized Mining
2	Quarry Area	:	1.155 ha (Plan Period) Life of Mine – 1.155ha
3	Waste Generation	:	Gritty Soil - 5474 cum(plan period) Life of Mine –Gritty Soil - 5474 cum
4	Stripping Ratio	:	1:0.016 (T:m3)
5	Working Days	:	300 days/year
6	Benches: size & No	:	6m x 6m
7	Elevation of Mine (Maximum)	:	In 721m MSL
8	Elevation of Mine (Minimum)	:	In 714m MSL
9	Ultimate Working Depth	:	In 690 mMSL
10	Water Table	:	In 683 mMSL
11	Topography of Mine	:	Gently sloping and Undulating
12	Explosive Requirement	:	Slurry – 45 kg/day
13	Diesel/Fuel requirement	:	Diesel - 27 liter/day

### PRODUCTION DETAILS

Year	Production of Stone in Tonnes per Annum	Gritty Soil removable in cum for 5 years
1 <sup>st</sup>	90000	2540
2 <sup>nd</sup>	90000	924
3 <sup>rd</sup>	90000	000
4 <sup>th</sup>	90000	750

5 <sup>th</sup>	81176	1260
<b>Total</b>	<b>441176</b>	<b>5474</b>

#### LAND USE

Type of land use	Existing in ha	During Plan Period in ha.	During Conceptual Period in ha
Quarry	Nil	1.155	1.155 (As Reservoir)*
Safety Zone (developed as greenbelt)	Nil	0.560	0.560
Approach roads	0.020	Merged within quarry	-
Infrastructure	Nil	Nil	-
Area unused	1.695	Nil	-
<b>Total</b>	<b>1.715</b>	<b>1.715</b>	<b>1.715</b>

#### ENVIRONMENT MANAGEMENT

##### Green Belt Development

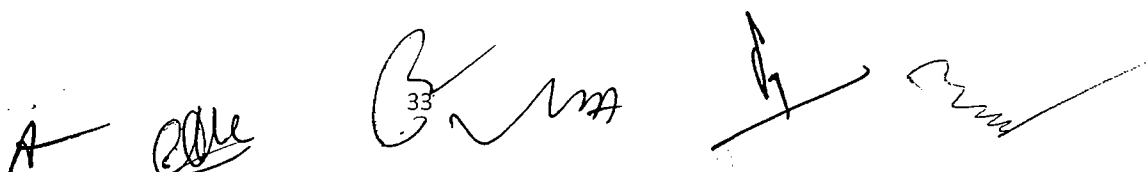
SL	LOCATION	Area/Length	No of Trees
1	Safety Zone	: 0.560 Ha	1400
2	Other Reclaimed Area	: 0.000	000
3	Haul /Approach Road	: 0.9 Km	600Tree both side approach road.

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

##### Solid Waste Management

- Overburden Generation will be in form of gritty soil 5474Cu.M. during the life of Mine. The waste generated shall be used for maintenance of benches and dressing of haul roads regularly. Thus no storage of waste is required.

##### Water Pollution Control Measures:



1. Negligible impact envisaged on surface water and ground water due to mining as no discharge of effluent or intersection of ground water.
2. No major surface water body within 1 km radius of the project site.
3. Garland drain & settling tank will be constructed around dump for arresting run-off, it will be integral part of rainwater harvesting system.
4. Post-project the quarry area will serve as reservoir, which will be source of water for the nearby areas.

**Air and Noise Pollution Control Measures:**

1. Water sprinkling shall be done on the haul roads.
2. Plantation to be done in the safety zone develop a green belt along the ML boundary.
3. Sharp drill will be used and wet drilling will be followed.
4. Controlled blasting- Nonel technology will be used.
5. Overloading will be prohibited while transporting. Water sprinkling will be taken up.
6. Plantation along transportation route will be done.
7. Regular monitoring of Air quality & PUC for vehicle will be carried out.

**Undertaking submitted affirming:**

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If tree falling is required a permission from competent Authority should be obtained.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Singhpur Stone Deposit of M/s Maa Mundeshwari Stone Mines, Village : Singhpur, Tehsil : Nagri, Dist. : Ranchi, Jharkhand (1.715 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III.

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6. Betakocha Brick Earth Deposit of M/s B.N.P. Bricks, Village : Betakocha, Tehsil : Ghatsila, Distt. : East Singhbhum, Jharkhand (1.352 Ha).

(Proposal No. : SIA/JH/MIN /402834/2022)

Name of the consultant: Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar.

This is a new project which has been taken for appraisal on 02.11.2022.

Project Category :B2 – Application for Environment Clearance

EC Application for : Soil 2000 m<sup>3</sup>/yr.

10000 m<sup>3</sup> during plan period

Top soil 3037.75m<sup>3</sup> during plan period.

**Project and Location Details:**

Sl.	Parameter	Details
1	Project Name	: Betakocha Brick Soil Deposit
2	Lessee:	: M/s B.N.P. Bricks, Proprietor- Mr. Asim Pradhan
3	Lease Address	: Village–Betakocha, P.S.– Ghatsila, District – East Singhbhum, Jharkhand.
4	Lease Area	: Ha:1.352                      Acres:3.34
5	Type of Land	: Non-Forest – Rayati Land
6	Project Cost	: Rs. 15.25 Lakhs
7	EMP Budget	: Capital: Rs. 3.0 Lakhs                      Recurring: Rs. 1.80Lakhs/ year Monitoring cost: Rs. 0.60 Lakhs/year
8	CSR / CER Budget	: Rs. 0.76 Lakhs
9	New or Expansion	: New
10	Mineable Reserves	: Cu.M.:17140.95Cu. M.
11	Mine Life	: 8.57 years ~ proposed only 5 years
12	Manpower	: 25 Person
13	Water Requirement	: 4.75KLD (Drinking:1.00KLD, Dust Suppression & Plantation:2.50KLD, Other: 1.25 KLD)
14	Water Source	: Through Tanker(from nearby pond/river)
15	DG Set / power	: Not proposed/Not Applicable
16	Crusher	: Not proposed/Not Applicable
17	Nearest Water Body	: Subarnarekha – 0.05 Km (S)
18	Nearest Habitation	: Bhelaipahari1.33 km NW direction from the mine site.
19	Nearest Rail Station	: Tatanagar Railway Station -9.90 Km (SW)
20	Nearest Airport	: Birsa Munda Airport, Ranchi 114 km NW

21	Nearest Forest	:	Reserve Forest – 1.50 Km (E) Reserve Forest – 1.35 Km (S) Bhelaipahari Reserve Forest – 2.17 Km (N)
22	Road & Highways	:	NH -33 (Jamshedpur -Ghatsila Road) at 1.35 Km (NE) and Nutandih Road at 0.94 Km (SE).

#### CO-ORDINATES

1	Latitude	:	From 22° 47' 54.26" N	To 22°47' 58.38" N
2	Longitude	:	From 86° 17' 36.77" E	To 86° 17' 42.03" E

#### LAND DETAILS :

Khata No.	Plot No.
101	118 (P)

#### STATUTORY CLEARANCES :

1	LOI/Lease docs	:	Land agreement made.
2	CO	:	The CO, Mango vide letter no. 899, dated 12.08.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in Khatiyani.
3	DMO	:	DMO, East Singhbhum, Jamshedpur vide memo no. 1340/Khanan, dated 28.09.2019 certified that no other mining area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Dalma Elephant Project vide letter no. 925, dated 06.09.2019 certified that the said project is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Jamshedpur Forest Division vide letter no. 3210, dated 09.12.2021 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The project is already mentioned in page no. 32 of District Survey Report (DSR) of District East Singhbhum.
7	Gram Sabha	:	Gram Sabha conducted on 22.08.2020.
8	Mine Plan Approval	:	Deputy Director, Geology, Daltonganj, Palamau vide Letter No. 598/G, dated 26.09.2019.

## WORKING DETAILS

1	Mining Method	:	Opencast Manual Mining
2	Quarry Area	:	5 years-0.571 ha      Life of Mine – 0.571ha
3	Waste Generation	:	5 years-Nil      Life of Mine –Nil
4	Stripping Ratio	:	NA
5	Working Days	:	150 days/year
6	Benches: size & No	:	1m x 1m
7	Elevation of Mine	:	In 130 MSL
8	Ground Level Elevation	:	In 130MSL
9	Ultimate Working Depth	:	In 128MSL
10	Water Table	:	In 123MSL and also 5-7 mbgl
11	Topography of Mine	:	Flat land
12	Explosive Requirement	:	Not applicable
13	Diesel/Fuel requirement	:	Not applicable due to manual mining& Kiln in nearby land

## PRODUCTION DETAILS

Year	Production Bricks Clay in cum per Annum	Topsoil removable in cum (for 5 years)
1 <sup>st</sup>	2000	3037.75
2 <sup>nd</sup>	2000	
3 <sup>rd</sup>	2000	
4 <sup>th</sup>	2000	
5 <sup>th</sup>	2000	
<b>Total</b>	<b>10000</b>	<b>3037.75</b>

## LAND USE

Category	Existing (Acres)	End of Plan Period (Acres)	End of Plan Period (ha.)	End of Mine Life (Acres)	Conceptual Plan (ha.)
Quarry Area	0.00	1.41	0.571	1.41	(Converted to levelled land with topsoil spread)
Topsoil storage, Road/ Infrastr./ etc.	0.00	0.57	0.231	0.57	
Berm Area& Plantation	0.00	0.27	0.108	0.27	Area under plantation

Unutilized Area	0.00	1.09	0.442	1.09	-
<b>Total Area</b>	<b>3.34</b>	<b>3.34</b>	<b>1.352</b>	<b>3.34</b>	-

## ENVIRONMENT MANAGEMENT

### Green Belt Development

SL	LOCATION		Area/Length	No of Plants/Trees
1	Safety Zone	:	0.108 Ha	1100 plants
2	Other Reclaimed Area	:	0.000	000
3	Haul /Approach Road	:	200meters	134Tree both side approach road.

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

### Solid Waste & Topsoil Management

- There will be no industrial solid waste generation. All the mined brick soil will be used for casting of bricks.
- Topsoil Generation will be 3037.75Cu.M. during the life of Mine. Topsoil storage area is 0.02ha. The topsoil shall be used for backfilling progressively till the end of life of mine of the mining operation.

### Water Pollution Control Measures:

1. Mining operation will be restricted to the depth of 2m from surface level.
2. Quality of dug well will be monitored, in order to ensure the quality of water is not affected.

### Air and Noise Pollution Control Measures:

1. Dust suppression measures like spraying / sprinkling of water to keep the surface wet.
2. Overloading of the carts will not be done.

As the only impact is due to transportation of soil through village roads, emphasis will be given on the following points:

1. Carts or manual-trolleys will be used on village roads.
2. Any vehicle used will be well maintained and PUC certified.
3. Timely maintenance of vehicles and their silencers to minimize vibration and sound.

4. Minimum use of horns in the village area and silence zone (if any) as applicable.

**Undertaking submitted affirming:**

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the vehicles will be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If tree falling is required a permission from competent authority will be obtained.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Betakocha Brick Earth Deposit of M/s B.N.P. Bricks, Village : Betakocha, Tehsil : Ghatsila, Distt. : East Singhbhum, Jharkhand (1.352 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III.

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Day 2 : November 03<sup>rd</sup> , 2022 [Thursday]

**Consideration of Proposals**

1. Proposed production capacity of the M.S. billets from 28800 TPA to ~950 MT/day (3,23,000 TPA) of steel billets, proposed ~920 MT/day (3,12,800 TPA) of rolled products and slag crushing unit from 1500 TPA to 1,45,000 TPA of M/s JKI Infrastructure Pvt. Ltd. of Shri Anil Kumar Pandey, Mouza : Barwadih, Thana no. : 251, P.S. : Teliya, Tehsil : Koderma, Distt : Koderma, Jharkhand.

(Proposal No : SIA/JH/IND1/ 403496/2022).

Name of the consultant: Rian Enviro Pvt. Ltd., Patna, Bihar



This is an existing project which has been taken for appraisal on 03.11.2022.

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 amendments thereafter. For this purpose the Project Proponent has submitted the prescribed Form - I & PFR the proposed project falls under item 3 (a) Metallurgical Industries (Ferrous & Non-Ferrous) as per EIA Notification, 2006.

S. No	Parameters	Description
1	Identification of project	Project falls under Metallurgical Industries (secondary metallurgical processing) Item 3(a) of the schedule of EIA notification of Sept 14, 2006 issued by MOEF & CC.
2	Project Proponent	M/s. JKI Infrastructure Pvt. Ltd.
3	Brief description of nature of the project	After proposed expansion, installed production capacity of the industrial unit will increase from 28800 TPA ~950 MT/day (3,23,000 TPA) of steel billets, proposed ~920 MT/day (3,12,800 TPA) of rolled products and slag crushing unit from 1500 TPA to 1,45,000 TPA.
4	<b>Salient Features of the Project</b>	
4.1	Proposed production capacity	~The production capacity of final/end product will be ~950 MT/day of steel billets & ~920 MT/day of rolled products (different rolled sections), while operating round the clock
4.2	Total Plot Area	Total Plot Area - 7.94 Acre
4.3	Location	Mauza - Barwadih, P.S Telaiya, Dist Koderma.
4.4	Water requirement	Water requirement is fulfilled through bore well made at the plant area and from the rain water harvesting pond. Overall water requirement for the proposed expansion project will be approx. 363 KLD out of which 305 KLD will be recirculated in the process and 58 KLD will be makeup water.
4.5	Source of water	Borewell
4.6	Wastewater	The domestic water consumption will result in generation of ~03 m <sup>3</sup> /day of domestic wastewater. The wastewaters will be

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S. No	Parameters	Description
		treated and entirely reused.
4.7	Man Power	Around 80 person
4.8	Electricity/Power requirement	The electrical power requirement will increase to ~24000 kVA. One DG set of 500 kVA already installed (as power back-up).
4.9	Alternative site	The proposed addition will be established in the existing plant premises only.

**Coordinate of the site :**

Latitude	24°25'28.052"N to 24°25'38.787"N
Longitude	85°29'36.826"E to 85°29'43.777"E

**LAND DETAILS :**






Khata No.	Plot No.
104	154
92	155
53	156
34	157
93	158
99	159
112	160
133	161
79	162
95	163
124	164
39	165
31	166, 167, 168, 247

Plant obtained CTE from Jharkhand State Pollution Control Board (JSPCB) vide letter no JSPCB/HO/RNC/CTE-10679717/2021/252 dated 30.09.2021.

Consent to operate (CTO) vide Ref No. JSPCB/HO/RNC/CTO-12332486/2022/1246 Dated: 2022-09-02 for the establishment of production of billets of capacity 28800 TPA and Slag Metal (from crusher) 1500 TPA.

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Sl no	Particulars	Existing	Proposed	After expansion final
1.	Unit processes/ machinery	Induction furnace (10 MT/heat)  Required utilities	Induction furnaces: (25*3 +20*1= 95 MT/heat)  <u>Existing 10 MT induction will be upgraded to 20 MT</u>  Ladle refining furnace (LRF): (50MT/batch)  Continuous casting (con cast) machine: - 50MT/hr  Rerolling mill (920 MT/day (3,12,800 TPA)  Slag crusher 30,000 TPA  Required utilities	Induction furnaces: (25*3 +20*1= 95 MT/heat)   Ladle refining furnace (LRF): (50MT/batch)  Continuous casting (con cast) machine: - 50MT/hr  Rerolling mill (920 MT/day (3,12,800 TPA)  Slag crusher 30,000 TPA  Required utilities
2.	Installed production capacity	~90MT/day (steel ingots/billets)	~860 TPA (billets) & ~920TPA (steel rolled sections)	~950 TPA (billets) & ~920TPA (steel rolled sections)
3.	Fixed capital investment (Rs)	25 Cr	~75 Cr	~95 Cr
4.	Electrical power requirement	~6.5MVA	~24MVA	~17.5 MVA
5.	Sponge iron	~129 MT/day	~1244 TPD	~1244 TPD
6.	Ferro-alloys	~1 MT/day	~42 TPD	~43 TPD
7.	MS scrap	~10 MT/day	~133 TPD	~143 TPD
8.	Ingots/billets (Only for rolling)	NIL	~920 MT/day	~920 MT/day
9.	Manpower requirement	~30	~50	~80
10.	Process water requirement	~ 8m3/day	~ 50m3/day	~ 58m3/day



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11.	Domestic water requirement	~1.26 m3/day	~2.74 m3/day	~4 m3/day
12.	Domestic wastewater generation	~1.09 m3/day	~2.51 m3/day	~3.6 m3/day
13.	Solid waste generation	~35 MT/day	~385 MT/day	~420 MT/day
	Slag	NIL	~10 MT/day	~10 MT/day
	Mill scale			
	Cutting & trimming	~Nil	~20 MT/day	~20 MT/day
14.	Hazardous waste	~300 kg/day	~1200 kg/day	~1500 kg/day
	APCD dust (35.1)	~100 kg/year	~800 kg/year	~900 kg/year
	Waste oil/lubricant (5.1)			
15.	APCD- Bag-House Filter	01	01	01
16.	Fuel	HSD- DG sets Electricity- Induction furnace Industrial Oxygen requirement 1.8 kg/ton		

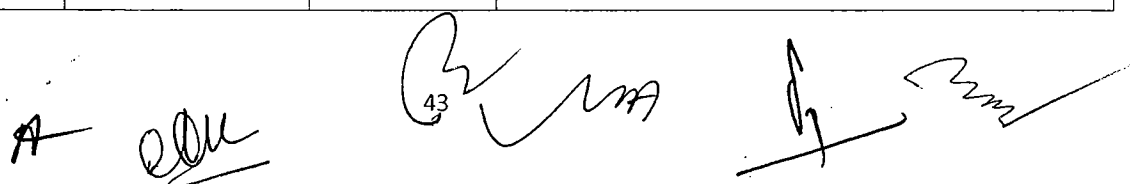
### Specific consumption of the plant

Raw Materials	Total Raw materials required After Expansion
<b>Specific consumption for 1 ton of billet production</b>	
Sponge Iron	1298 Kg
Ferro Alloys (SiMn/FeSi)	52 Kg
Metal scrap from in house metal extraction /Pig iron	154 Kg
<b>Total Raw Materials for Billet production</b>	<b>1504 Kg</b>
Billets/M.S. Billets	1000.16 kg

### Industrial Solid waste and Hazardous waste

Units	Solid Wastes	Qty In TPA	Disposal practice
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Induction Furnace	Slag	1,45,000	In-house metal recovery in slag crusher and supplied outside for further reuse in construction work.
Bag Filter Dust from process	Dust from process	1500	Partly recycled (metal content). Rest supplied outside for further reuse in construction work and Low land filling
Rolling Mill	End cuttings & Mill Scale	30	Recycled in-house along with scrap in the induction furnace.

The hazardous wastewill be stored and managed as per Hazardous waste management and Handling rule 2016.

### Electricity regulation for safe distance from Hight tension power supply

A high-tension power transmission supply of 440 Kvwire is crossing above the plant area, the plat is oriented in a way that electric wire is passing through the green belt area of the plant. As per the regulations, more than33 KV power transmission line which passes above any object on ground must have at 3.7 meters plus 0.3m for every additional 33kv or part thereof vertical height and 2-meter plus 0.3m for every additional 33kv or part thereof horizontal distance from a building is within limits. While on site 30 meter of horizontal distance is maintained for the work zone and approximately ~7.5 of vertical distance trees is maintained currently.

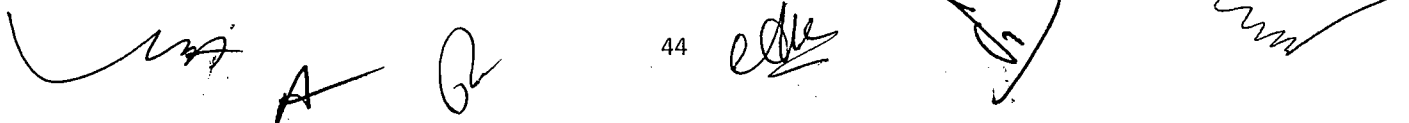
### STATUTORY CLEARANCES :

1	DFO Forest Distance	:	DFO, Koderma Forest division vide letter no. 1348, dated 27.03.2021 certified that the distance of reserved / protected forest is 260 m from proposed project site.
2	DFO wildlife	:	DFO, Wildlife Hazaribagh vide letter no. 734, dated 10.04.2021 certified that the proposed project site is out of Eco Sensitive Zone of Koderma Wildlife Sanctuary.
3	CO certificate	:	The CO, Koderma vide letter no. 1062, dated 22.07.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar.
4	Consent to Operate (CTO)	:	Consent to Operate (CTO) granted by JSPCB vide Ref. no. : JSPCB/HO/RNC/CTO-12332486/2022/1246, dated 02.09.2022

Based on the information contained in the documents submitted and the presentation made before the State Level Expert Appraisal Committee (SEAC) during its meetings held during 02, 03, 04 & 05.11.2022, the Committee recommends for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure IV alongwith the following specific conditions :

- I. Approved site specific Wildlife conservation plan to be prepared.

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- II. Certified compliance report of CTO conditions to be provided at the time of final EIA/EMP report.
- III. One month baseline study to be conducted in addition to the study already done prior to consideration of ToR.
- IV. Water balance diagram and requirement to be reverified and corrected accordingly.
- V. Material flow diagram to be revised.
- VI. The slag generation in the unit is to be reassessed and capacity of the crusher unit to be designed accordingly.
- VII. Clarification regarding High tension line passing over the project area is to be provided.

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**2. Proposed Residential Complex "Signature Homes" of M/s Minu Enhance Developers, Mauza : Gari, Village : Gari Bari Bariyatu, Thana no. : 194, Distt. : Ranchi, Jharkhand.**

**(Proposal No. : SIA/JH/MIS /277378/2022)**

**Name of the consultant: Rian Enviro Pvt. Ltd., Patna, Bihar**

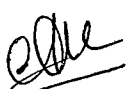
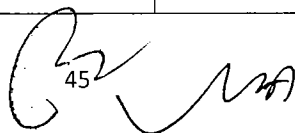
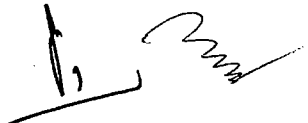
This is a new project which has been taken for appraisal on 03.11.2022

Project is classified as Category 8(a) as per EIA Notification as the built-up area is less than 1,50,000 sqm. and development area is less than 50 ha.

Minu Enhance Developers is proposed to develop a Group housing project "Signature Homes" on the total land area measuring 6873.94 m<sup>2</sup> located at Khata No. 07, Thana No.194, Mauza – Gari, Anchal- Baragao, Dist.-Ranchi, Jharkhand. The total build up area is 22265.2m<sup>2</sup>.

**Salient Features of the Project**

Sl. no.	Particulars	
1.	Latitude	23°23'58.416"N
2.	Longitude	85°21'52.22"E
3.	Plot Area	6873.94Sqm.
4.	Proposed Ground Coverage (@29.1%)	2000.43Sqm.
5.	Proposed Parking Area	5548.33 Sqm.
6.	<b>Total Built-up Area</b>	<b>22265.2 Sqm.</b>
7.	<b>Total Parking Proposed (ECS)</b>	<b>Four Wheeler: 174 ECS</b> <b>Two Wheeler: 248 Nos.</b>
8.	Total Green Area with @20%	1403.360 Sqm.

A   

Sl. no.	Particulars		
9.	Rain Water Harvesting Pits (with size)	5 (2.55 Cumec / hour= 61.43 cumec /day)	
10.	STP Capacity	90 KLD	
11.	Maximum Height of the Building (m)	~56.76 m.	
12.	Power Requirement	1571 kW (Source: The source of power will be supplied by Jharkhand State Electricity Board.)	
13.	Power Backup (DG sets)	1 x 500 KVA	
14.	Total Water Requirement	~99 KLD	
15.	Fresh/Domestic Water Requirement	~99 KLD	
16.	Reuse of Recycled Water	~ 85 KLD	
17.	Waste Water Generated	~94 KLD	
18.	Solid Waste Generated (Operational)	~445.60 Kg/day	
19.	Biodegradable Waste (Operational)	~190.20 Kg/day	
20.	Non-Biodegradable Waste (Operational)	~255.40 Kg/day	
23.	Number of Tower (Residential Building)	02	
24.	Basement	01	
25.	Stories	B+G+XVI (Maximum) Max. Height of the Building: 56.76m.	
26.	R+U Value of Material used (Glass)	U-value-4.9 w/m <sup>2</sup> R-value- 0.20 w/m <sup>2</sup>	
27.	Total Cost of the project:	45 Cr.	
28.	EMP Budget	During Construction: Capital: 191 Lakhs Recurring: 10 Lakhs	
		Operational Cost: Capital: 101 Lakhs Recurring: 25 Lakhs	
29.	Construction Phase:	i) Power Back-up	500 KVA each
		ii) Water Requirement & Source	Fresh water – 61 KLD Treated wastewater-85 KLD Source: Ground Water
		iii) STP (Modular)	90 KLD
30.	Connectivity	Ranchi Railway Station	Approx. 8.2km
		Birsa Munda Airport	Approx. 12.8km

Sl. no.	Particulars	
31.	CER Cost	90 Lakhs

#### Detailed Area Statement

Particulars	Area(Sqm.)
PlotArea	6873.940
ProposedParkingArea	5548.33
<b>TotalBuilt-upArea</b>	<b>22,265.2</b>
GroundCoverage@(29.1%)	2000.43
<b>GreenCoverArea @20%</b>	<b>1403.36</b>

#### Details of Site Surroundings and Connectivity

Sl. No.	Description	Distance & Direction
1.	Nearest Railway Station Ranchi Railway Station	Approx. 8.2km
2.	Airport Birsamunda Airport	Approx. 12.8km, NNE
3.	Roads Bariyatu Road Hazaribagh Road	Approx. 0.22km, Approx. 1.9 km,
4.	Waterbodies -	-
5.	Nearest School, Hospital & Temple <b>Schools</b> Surendranath Centenary School  <b>Hospitals</b> Asha Kiran Hospital  <b>Temples:</b> Shiv Mandir	Approx. 2.00 km  Approx. 0.20 km  Approx. 0.21 km
6.	Nearest Densely Bariyatu	Within periphery
7.	Nearest Town Ranchi	Within periphery

#### Details of Building Blocks

	5BHK	4BHK	3BHK	Shop (Area Sqm)	Total units	No. of Floors
Residential	1	20	84	1235.2	105	B+G+16
<b>Total</b>				-	<b>105</b>	--

### Calculation of Population

Description	No. of units/ Area in Sqm.	Unit Pop ulation	Population
Main Dwelling Units(Residential)5BHK	1	8	8
Main Dwelling Units(Residential)4BHK	20	7	140
Main Dwelling Units(Residential)3 BHK	84	6	504
Shop	1235.2 Sqm		
CommunityHall	661.69 Sqm		
Visitors(15%oftheresidenti alpopulation)	...	...	98

### ParkingDetails

S.no.	ParkingType	PropNo. / ECS
1.	CarParking	174
2.	Visitorscarparking	13
3.	Twowheelerparking	248

### Calculation of Green Area

TotalPlot Area	6873.94Sqm.
Landscapeareprovided	1403.36Sqm.
TotalNo. ofTreeswill bePlanted@ 1 treeper80Sqm. ofPlotArea	150Nos.

### Details of Water Requirement

S. No.	Description	No. ofunits / Area in Sqm.	Unit Population	Population	Unit water consumption (lpcd)	Total water required (kl)	resh water required (kld)	Flushing (kld)	Total Waste water (kld) (85% of domestic +100%Total flushing)
1	Main Dwelling Units(Residential)5BHK	1	8	8	135 (90+45)	1.08	0.7	0.36	0.97
2	MainDwellin gUnits (Residential)4 BHK	20	7	140	135 (90+45)	18.9	12.6	6.3	17.01
2	MainDwellin gUnits (Residential)3 BHK	84	6	504	135 (90+45)	68.04	45.36	22.68	61.23
3	Shop	1235.2	6	206	45 (25+20)	3.07	1.02	2.05	2.93

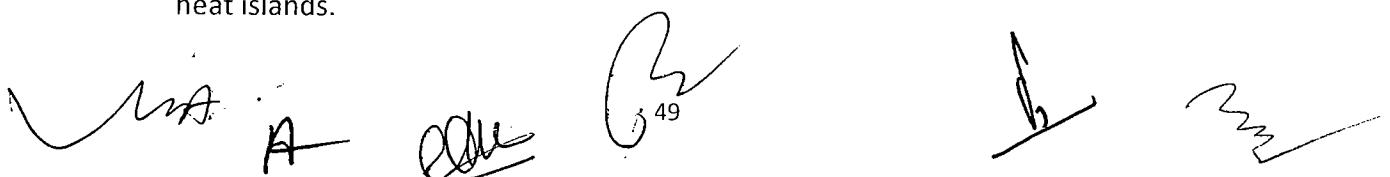
4	Offices	661.69	10	66	45 (25+20)	2.97	1.65	1.32	2.72
Subtotal -I						94.08	61.36	32.72	84.88
Reuseoftreatedwater									
1	Horticulture	1403. 36Sq m.	...	...	6 liter/sqm ofLandsca pearea	8			
2	Road Washing	1934. 858				21			
3	Car Washing					23			
4	Flushing					32.72			
Subtotal II						84.72			
Grand TotalI+II						169.6			

**STATUTORY CLEARANCES :**

1	DFO Forest Distance	:	DFO, Ranchi Forest division vide letter no. 2472, dated 06.06.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
2	DFO wildlife	:	DFO, Wildlife Ranchi vide letter no. 548, dated 10.06.2022 certified that the proposed project site is outside Eco Sensitive Zone.
3	CO certificate	:	The CO, Baragai, Ranchi vide letter no. 547 (ii), dated 19.05.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyani & Register II.
4	AAI NOC	:	Airport authority of India issued NOC vide NOC ID RANC/EAST /B/051122/671364, dated 24.05.2022.
5	Fire Department	:	A fire advisory has been issued by Fire Department, Jharkhad, Ranchi vide vide memo no. 2507/Tech./2022, dated 24.06.2022.
6	Building Plan	:	Conceptual Plan submitted.

Based on the presentation made and information provided, the Committee decided that the proposal for Proposed Residential Complex "Signature Homes" of M/s Minu Enhance Developers, Mauza : Gari, Village : Gari Bari Bariyatu, Thana no. : 194, Distt. : Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II alongwith the following specific conditions :

- I. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.
- II. All raw material to be stored only under covered shed.
- III. PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.



- IV. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load. It is to be achieved by solar panels etc meeting ECBC norms.
- V. Trees should be developed & maintained not less than 15% of project area.
- VI. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.
- VII. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- VIII. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.
- IX. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- X. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.
- XI. Sufficient number of EV fast charging points to be installed.

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3. Proposed Residential Building "Resizone Elanza" of M/s Resizone Buildwell Pvt. Ltd., Mauza : Hotwar, Village : Gari, Thana no. : 180, Thana : Sadar, Distt. : Ranchi, Jharkhand.

(Proposal No. : SIA/JH/INFRA2/402763/2022)

Name of the consultant: Rian Enviro Pvt. Ltd., Patna, Bihar

Project Category: 8 (a) Category B2 – (at par with B1 being violation case)

ToR Application for Residential building: Total built-up area of 36020.08 Sqm. (Approx. 35% part of the project has already been constructed).



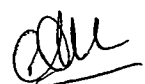
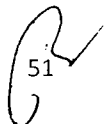


This is a case of violation which has been taken for appraisal on 03.11.2022 in the light of OM no. F.No.22-21/2020-IA.III [E 138949] dated 28.01.2022 of MoEF&CC, Govt. of India, order passed by Hon'ble Apex Court in the matter of civil appeal no. 7576-7577 of 2021 in Electrosteel Steels Ltd. vs Union of India and SOS vide OM no. F.No. 22-21/2020-IA.III dated 07.07.2021 issued by MoEF&CC, Govt. of India.

Project and Location Details :

Sl. no.	Parameters	Description
21.	Latitude	23°22'39.92"N

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Sl. no.	Parameters	Description
22.	Longitude	85°23'00.37"E
23.	Plot Area	6526.30 Sqm. (Or 0.65263 Ha.)
24.	Project Cost	INR 40 Crores
25.	Built-up Area	36020.08 m <sup>2</sup>
26.	Greenbelt Area (@15 % of plot area)	979 Sqm.
27.	Population	Residential: 1043 Nos. Visitors: 156 Nos.
28.	Water Requirement	109 KLD
29.	Fresh Water Requirement	74 KLD
30.	Reuse of Recycled Water	35 KLD
31.	Wastewater Generation	91 KLD
32.	STP Capacity	110 KLD
33.	Total Municipal Waste	493 kg/day Biodegradable Waste: ~ 296 Kg/day Non-Biodegradable Waste: ~197 Kg/day
34.	Power Requirement	1100 KW (Jharkhand State Electricity board)
35.	DG Sets	400 KVA 2 x 200 KVA
36.	RWH Pits	2 (28 Cumec / hour)
37.	Parking	227 (Four-wheeler), 452 (Two-wheeler) 21 (Visitors car Parking), 2 (Ambulance)
38.	Basement	02
39.	Connecting road	Project site is well connected with road. Site is well connected with Khelgaon- Tatisilwai Road, NH 20, Ranchi- Purulia Road.
40.	National Highway	Khelgaon- Tatisilwai Road (Approx. 0.49 km, NW) NH-20 (Approx. 1.65 km, WNW) Ranchi- Purulia Road (Approx. 2.74 km, SSE)
41.	Nearest Railway Station	Namkon Railway Station, (3.00 km, SW)
42.	Airport	Birsa Munda Airport, (Approx. 8.90 km, SW)
43.	Nearest Hospitals	Samford Hospital, Kokar

Sl. no.	Parameters	Description
		(Approx. 2.29 km, West) Sadar Hospital (Approx. 5.97 km, WSW)
44.	Nearest Water Bodies	Subarnarekha River- Approx. 1.38 km, SSW Ranchi Lake- Approx. 6.75 km, WSW Boreya Pond- Approx. 6.18 km, NW Kanke Dam - Approx. 8.28 km, NW
45.	EMP Budget	During Construction: Capital: 18 Lakhs Recurring: 20.25 Lakhs
		Operational Cost: Capital: 88 Lakhs Recurring: 22 Lakhs
24.	Construction Phase:	Power Back-up: 50 KVA each Water Requirement & Source: Fresh water – 9 KLD Treated wastewater-12 KLD Source: Tanker Water STP (Modular): 20 KLD
25.	Connectivity	Namkon Railway Station: Approx. 3.00 km, SW Birsamunda Airport: Approx. 8.90 km, SW

#### Area Summary

S. No.	Description	Area (Sq.m.)
1.	Plot Area at Site	6526.30
2.	Green Belt Area @ 15%	979
3.	Open Area	3300.3
4.	Proposed Ground Coverage (@34.44% of net plot area)	2247.86
5.	Proposed FAR (@3.43 of plot area)	22355.04
6.	Parking and Non-FAR Area (Strain case, Lift, Balcony, Ramp, Accessory Use)	13,665.04
7.	Built-Up Area	36020.08
8.	Dwelling Units/Units Residential	Block F-110 Block G-88
9.	Height	Approx. 40 m

Co-Ordinates:

1	Latitude	23°22'39.92"N
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2	Longitude	85°23'00.37"E
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**LAND DETAILS :**

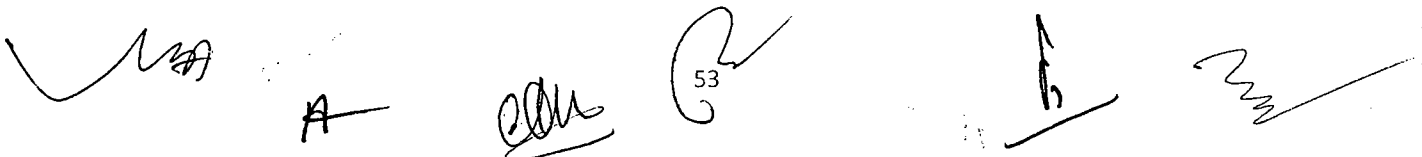

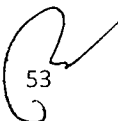

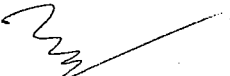
Khata No.	Plot No.
19 & 44	507/P, 508/P, 509/P, 511/P & 514/P

**STATUTORY CLEARANCES :**

1	DFO Forest Distance	:	DFO, Ranchi Forest division vide letter no. 2719, dated 27.06.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
2	DFO wildlife	:	DFO, Wildlife Ranchi vide letter no. 606, dated 04.07.2022 certified that the proposed project site is outside Eco Sensitive Zone.
3	CO certificate	:	The CO, Baragai, Ranchi vide memo no. 703 (ii), dated 24.08.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyon & Register II.
4	AAI NOC	:	Airport authority of India issued NOC vide NOC ID RANC/EAST /B/030718/285187, dated 07.03.2018.
5	Fire Department	:	A fire advisory has been issued by Fire Department, Jharkhad, Ranchi vide vide memo no. 975/Tech., dated 26.06.2018.
6	Building Plan	:	Conceptual Plan submitted.

**Water and waste water Requirement Details :**

S. No.	Description	No. of units	Unit Population	Population	Unit water consumption (LPCD)	Total water required (KLD)	Fresh water required (KLD)	Flushing (KLD)	Total Waste water (KLD) (80% of domestic +100% Total flushing)
1	Main Dwelling Units (Residential)	198	4 for 1 BHK 5 for 2 BHK 6 for 3 BHK 7 for 4 BHK	1043	100	104	73	31	89.4


  
 A   53  

3	Visitors (15% of the residential population)	.....	.....	156	15 (5+10)	2.34	0.78	1.56	2.184
Subtotal -I						106.34	74	32.56	91.58
Reuse of treated water									
1	Horticulture	979 Sq.m.	3 liter/ sqm. of Landscape area	...	...	3			
Subtotal II						3			
Grand Total I+II						109			

Category	Total Quantity (KLD)
Fresh water Req. for domestic purpose	74
Flushing water Req.	32
Sewage generation (@80% of the fresh water consumption + 100% flushing water)	91 (59+32)
Capacity of STP	110
Recovered water from STP (80% of Waste water)	73
1. Flushing	32
2. Landscaping	3
3. Discharge to Sewer	38

#### Solid Waste Requirement

S. No.	Category of Solid Waste	Waste Generation Rate	Formula	Total Population	Waste Generated	Bio-degradable	Non-biodegradable
1	Main Dwelling Units (Residential)	0.3 to 0.6 kg/cap/day	Total Population *0.45	1043	469.35	281.61	187.74
2	Visitors (15% of the residential population)	0.1 to 0.3 kg/cap/day	Total Population *0.15	156	23.4	14.04	9.36
	<b>Total</b>			<b>1199</b>	<b>493</b>	<b>296</b>	<b>197</b>

#### ENVIRONMENT MANAGEMENT

##### Green Belt Development

- Combination of local trees and shrubs are planned within the project site.

- Green belt will be provided in 979 sqm. (@15% of plot area), which will enhance the beauty of the site and help combat air and noise pollution.
- The plant species will be selected on the basis of Guidelines for Developing Green Belts, CPCB March 2000.

### **Solid Waste Management**

#### **During Construction Phase**

- Construction yards are proposed for storage of construction material.
- Excavated top soil will be stored in temporary constructed soil bank and will be reused for landscaping of the project.
- Remaining soil will be utilized for refilling/road work/raising of site level at locations.
- There will be "Refuse Containers" at site for the management of domestic waste generated by the construction labourers and these containers will be emptied at least once daily.
- Cement bags, waste paper and packing material (cardboard) will be sold off to recyclers.

#### **During Operation Phase**

- The solid waste will be segregated at source & collected.
- Adequate number of colored bins (green, white & Black) separate for bio-degradable, non-biodegradable and Hazardous waste are proposed to be provided at the strategic location within site.
- Bio-degradable (will be composted through organic waste converter).
- Recyclable wastes will be disposed to govt. or SPCB approved third party vendors.
- Dewatered sludge can be buried underground in a sanitary landfill. It also may be spread on agricultural land in order to make use of its value as a soil conditioner and fertilizer.
- The Hazardous waste generated will be managed as per the Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016.
- Horticultural Waste is composted and used for gardening purposes.

### **Water Quality Management**

#### **During Construction Phase**

- The site drainage will be planned in such a way that there is no accumulation of water/wastewater within the project premises or in the vicinity of the site.
- Mobile toilets to be provided for construction Labourers.
- Generated waste water will be collected through tankers and dispose to septic tank for treatment.

#### **During Operation Phase**

- STP of capacity i.e. 110 KLD is proposed for treatment of wastewater.
- Treated waste water would be reused for Horticulture, DG cooling, flushing and in nearby construction site/sewer.
- Use of water efficient plumbing fixtures to conserve water.
- Approx. 74 KLD of fresh water is required during operational phase of the project.

### **Air Quality Management**


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- Warehouse/stock yard will be provided for storage of construction material
- Covering of stored construction materials with tarpaulin covers which will be resold to authorized construction material handling agency for reuse.
- Covering of trucks carrying construction materials.
- Dust suppression by water sprinkling.
- Adequate maintenance of construction equipment & vehicles.
- Wheel wash facility at the entry/exit of the site to prevent dust emissions.
- Periodical Ambient Air Quality Monitoring.
- PUC Certified vehicles.
- Glow signs Speed Limits to 20 kmph to reduce emissions on site will be displayed at the important junctions.

#### Energy conservation

Solar Panels will be used in Street Lights, Common area, Pumping area.

Based on the information contained in the documents submitted and the presentation made before the State Level Expert Appraisal Committee (SEAC) during its meetings held during 02, 03, 04 & 05.11.2022, the Committee recommends for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure V.

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4. "Samriddhi Heights" of M/s Swastik Builders, Village : Getlatu, Tehsil : Kanke, Distt. : Ranchi, Jharkhand.

(Proposal No. : SIA/JH/INFRA2 /401415/2022)

Name of the consultant: Crystal Consultants, Ranchi

This is a new project which has been taken for appraisal on 03.11.2022

Project is classified as Category 8(a) as per EIA Notification as the built-up area is less than 1,50,000 sqm. and development area is less than 50 ha.

PARTICULAR	DETAILS
Project Name	Samriddhi Heights
Proponent	Swastik Builders
Type of Building	Residential Building
Latitude	23°25'02.2"N
Longitude	85°24'23.5"E
Mauza	Getlatu
Tehsil	Kanke
District	Ranchi
State	Jharkhand

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Plot Area	Total Plot Area as per sale deed is 5385.08 m <sup>2</sup> Net Plot Area <b>4565.89 m<sup>2</sup></b> after deduction of common area
Plantation	696.75 m <sup>2</sup> (15.25 % of the Net Plot Area) 24 Trees proposed
Permissible Ground Coverage	2631.31 m <sup>2</sup> (50%)
Consumed Ground Coverage	1649.81 m <sup>2</sup> (31.35 %)
Permissible FAR	3.50
Consumed FAR	3.48
No. of Building Block	2 Residential Building Tower
Total Built-Up Area	Total Built- Up Area: 26362.27 m <sup>2</sup>
No. of Floor	Tower 1 : 15 Tower 2 : 10
Height	Tower 1 : 45 m Tower 2 : 30 m
Building Configuration	<b>Total Dwelling Units: 207</b> 1 BHK: 63 (EWS) 2 BHK: 9 (LIG) 3 BHK: 135
Population	1218 including 10% floating population
Parking	4 Wheelers: 153 2 Wheelers: 189 Visitors Car Parking: 17 <b>Total Area Provided for Parking: 5796.73 m<sup>2</sup></b>
Municipal Solid Waste	Total Municipal Solid Waste = 730.80 Kg / Day Bio-Degradable = 292.32 Kg / Day Non-Biodegradable= 438.48 Kg / Day
Power Requirement	500 KVA Source : Jharkhand State Electricity Board
Power Back-up	350 KVA
Renewal Energy	75 KVA
RWH Pits	2 Pits
Total Water Demand	187.08 KLD
Volume of Waste Water	110.83 KLD
Capacity of STP	120 KLD
Total Treated Water from STP	113.97 KLD
Project Cost	Rs. 39.00 Crores

**LAND DETAILS :**

Khata No.	Plot No.
80	212, 214, 215 & 216
13	213

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**POPULATION ESTIMATION**

Construction Phase : 150 labors will attend during construction phase.

**Operational Phase**

	Configuration	Number of Dwelling Units	Number of persons as per NBC	Population
Residential Building	1 BHK	63	4	252
	2 BHK	9	5	45
	3 BHK	135	6	810
	4 BHK	0	0	0
	Sub-Total			1107
	Floating Population (10% of Total Population)			111
	<b>Total</b>			<b>1218</b>

**MUNICIPAL SOLID WASTE****Construction Phase**

Building Type	Municipal Solid Waste @0.2 Kg per Person per Day	Bio-degradable (40% of MSW)	Non-Biodegradable (60% of MSW)
Residential Building	30 Kg / Day	12 Kg / Day	18 Kg / Day

**Operational Phase**

Building Type	Municipal Solid Waste @0.6 Kg per Person per Day	Bio-degradable (40% of MSW)	Non-Biodegradable (60% of MSW)
Residential Building	730.80 Kg / Day	292.32 Kg / Day	438.48 Kg / Day

**WATER & WASTE WATER****Construction Phase**

Potable : 1.5 KLD @ 10 L per Person  
 Flushing : 2.5 KLD @ 15 L per Person  
 Construction work : 25 KLD  
**Total : 29 KLD**

Source – Municipal Tanker Supply

**Operational Phase**

Water Balance (KLD)	Source
---------------------	--------

Domestic @ 70 L per Person per day	85.26	Fresh Water
Flushing @ 35 L per Person per day	42.63	Treated Water
Horticulture	5.00	Treated Water
Dust Suppression	10.00	Treated Water
Vehicle Washing	31.03	Treated Water
<b>Total</b>	<b>173.92</b>	
<b>Fresh Water Demand</b>	<b>85.26</b>	<b>Preferably Municipal Water Supply System</b>
<b>Treated Water Demand</b>	<b>88.66</b>	<b>Treated Water from STP</b>

### STP & WASTE WATER MANAGEMENT

STP Calculation (KLD)			
Total Domestic Water	85.26	68.20	80% of Domestic Water is Waste Water
Total Flushing Water	42.63	42.63	100% of Flushing Water is Waste Water
<b>Total Volume of Waste Water</b>		<b>110.83</b>	
<b>STP Capacity</b>		<b>120.00</b>	
Waste Water Management (KLD)			
Volume of Treated Water from STP <i>i.e., 80% of Waste Water</i>			88.66
Break-Up			
Flushing			42.63
Horticulture			5.00
Dust Suppression			10.00
Vehicle Washing			31.03
Loss 20 % loss on account of evaporation, loss in conveyance and processing.			22.17

### RAIN WATER HARVESTING

2 Rainwater Harvesting pits are proposed. Rain water from roof tops will be drained through rain water vertical down take pipes. These vertical down take pipes shall be located at suitable locations inside the shafts or periphery of the building. The terrace will be sloped. The down take pipes will be connected to the storm water network and then to Rainwater Harvesting Pits.

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Catchment Area(m2)	Runoff Coefficient	Intensity of Rainfall in 24 hr. (mm)	Maximum Intensity of Rainfall hourly (mm/hr)	Retention Time - Runoff (m3/15 mins)	Runoff 60 minutes
1315	0.85	180	9	2.51	10.06

Volume of desilting Tank (m3)	Volume of Recharge Pit (m3 Per pit)	Total Volume (M3)	Runoff 60 minutes	No. of pits required	No. of pits proposed
1.5	3.375	4.875	10.06	2.063538	2

**STATUTORY CLEARANCES :**

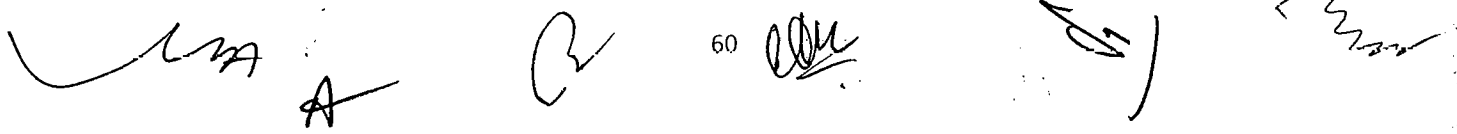
1	DFO Forest Distance	:	DFO, Ranchi Forest division vide letter no. 2046, dated 28.04.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
2	DFO wildlife	:	DFO, Wildlife Ranchi vide letter no. 380, dated 27.04.2022 certified that the proposed project site is outside Eco Sensitive Zone.
3	CO certificate	:	The CO, Kanke (Ranchi) vide letter no. 741(ii), dated 10.05.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyan & Register II.
4	AAI NOC	:	Airport authority of India issued NOC vide NOC ID RANC/EAST /B/032222/662056, dated 29.03.2022.
5	Fire Department	:	A fire advisory has been issued by Fire Department, Jharkhad, Ranchi vide vide memo no. 1425/Tech./2022, dated 25.03.2022.
6	Building Plan	:	Building Plan sanctioned by Ranchi Regional Development Authority (RRDA) vide case no. RRDA/AH/0271/2021 dated 21.10.2021.

During the presentation the following documents were sought :

- Undertaking that the width of plantation alongwith boundary will be 2 mtrs.
- Revised water & waste water balance table to be provided.

The Project Authorities have submitted the above mentioned documents.

Based on the presentation made and information provided, the Committee decided that the proposal for "Samriddhi Heights" of M/s Swastik Builders, Village : Getlatu, Tehsil : Sadar, Distt.



: Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II alongwith the following specific conditions :

- I. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.
- II. All raw material to be stored only under covered shed.
- III. PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.
- IV. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load. It is to be achieved by solar panels etc meeting ECBC norms.
- V. Trees should be developed & maintained not less than 15% of project area.
- VI. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.
- VII. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- VIII. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.
- IX. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- X. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.
- XI. Sufficient number of EV fast charging point to be installed.

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5. (i) Vasundhara Elegance (ii) Vasundhara Megamart (iii) Vasundhara Radiance of M/s Vasundhara Homes Pvt. Ltd. at Mouza : Argora, Tehsil : Argora, Dist : Ranchi, Jharkhand.

(Proposal No : SIA/JH/MIS/282659/2022).

Name of the consultant : Crystal Consultnats, Ranchi

This is a case of violation which has been taken for reappraisal on 03.11.2022



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The project is a violation case since the project proponent has started the construction without prior Environmental Clearance from State Environment Impact Assessment Authority (SEIAA), Jharkhand.

However, The Honourable Supreme court in its order dated 9<sup>th</sup> December 2021 In the matter of the Civil appeal No 7576-7577 of 2021 in the Electro steel Steels Limited Vs Union of India and Ors in its para 93 has inter- alia observed the following :

*“The interim order passed by the Madras high Court appears to be misconceived. However, this court is not hearing an Appeal from that interim order. The interim stay passed by the Madras High court can have no application of operations of the Standard Operating Procedure to the projects in territories beyond the territorial jurisdiction of Madras High court. However, final decision may have been taken in accordance with the Orders/ Rules prevailing prior to 7th July, 2021.”*

Thus, the SEIAA, Jharkhand, in the light of Ho’ble Supreme Court order dated 9<sup>th</sup> December 2021, Office Memorandum no. F.No.22-21/2020-IA.III[E 138949] dated 28.01.2022 of MoEF&CC, Govt. of India and Standard Operating Procedure (SOP) issued by MoEF&CC, Govt. of India vide its file number 22-21/2020-IA-III, dated 07.07.2021, the matter has been taken for consideration & recommendation of EC for violation projects.

**Project Category: 8 (a) Category B2 – (at par with B1 being violation case)**







The State Expert Appraisal Committee, Jharkhand deliberated the project during its 93<sup>rd</sup> meeting held on 18-27.02.2022 and SEIAA, Jharkhand has approved the violation ToRs in 94<sup>th</sup> meeting held on 13<sup>th</sup>, 14<sup>th</sup> & 15<sup>th</sup> April, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. 105, date 16.04.2022. The final EIA / EMP submitted by PP to SEIAA on 12.07.2022 and which was forwarded to SEAC on 13.07.2022.

**Salient Features of the Project :**

Particular	Details
Plot Area as per allotment	<b>Total Plot Area as per Deed : 9324.11 Sq. m.</b>
Latitude & Longitude	<b>23°21’07” N 85°17’58” E</b>
Built Up Area	<b>Built – Up Area : 27929.00 Sq. m.</b> 1. Community Hall : 469.07 Sq. m. 2. Commercial Building (Block – A) : 2770.65 Sq. m. 3. Residential Building (Block – B) : 10469.43 Sq. m. 4. Residential Building (Block – C) : 14220.33 Sq. m.
Plot No.	1781, 1782 (P), 1735 (P)
Khata No.	34
Number of Floor	1. Community Hall : G+2 2. Commercial Building (Block – A) : LG+G+5 3. Residential Building (Block – B) : LG+G+10

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	4. Residential Building (Block – C) : LG+G+14
Number of Block	<b>4 Blocks</b> 1. Community Hall 2. Commercial Building (Block – A) 3. Residential Building (Block – B) 4. Residential Building (Block – C)
Building configuration	1. Commercial Building (Block – A) Shop on Street Level : 10 Shop above Street Level : 10 Office : 15 2. Residential Building (Block – B) 2 BHK : 10 3 BHK : 70 3. Residential Building (Block – C) 3 BHK : 112
FAR	2.99
Ground Covered Area	3059.04 Sq. m.
Population	<b>1754</b> 1. Community Hall : 94 2. Commercial Building (Block – A) : 404 3. Residential Building (Block – B) : 517 4. Residential Building (Block – C) : 739
Municipal Solid Waste	1. Community Hall : 56.29 2. Commercial Building (Block – A) : 242.52 3. Residential Building (Block – B) : 310.20 4. Residential Building (Block – C) : 443.52
Bio-Degradable (40 % of MSW)	1. Community Hall : 22.52 2. Commercial Building (Block – A) : 97.01 3. Residential Building (Block – B) : 124.08 4. Residential Building (Block – C) : 177.41
Non – Biodegradable (60% of MSW)	1. Community Hall : 33.77 2. Commercial Building (Block – A) : 145.51 3. Residential Building (Block – B) : 186.12 4. Residential Building (Block – C) : 266.11
Power Requirement	Community Hall : 75 KVA Commercial Building (Block – A) : 129 KVA Residential Building (Block – B) : 400 KVA Residential Building (Block – C) : 560 KVA For Common Services : 50 KVA TOTAL : 1214 KVA Source – Jharkhand State Electricity Board  Back-up Power (DG Set) Community Hall : 35 KVA

	Commercial Building (Block – A) : 62.5 KVA Residential Building (Block – B) : 125 KVA Residential Building (Block – C) : 112 KVA For Common Services : 25 KVA TOTAL : 359.5 KVA
Back – Up Power	<b>Back-up Power (DG Set)</b> Community Hall : 35 KVA Commercial Building (Block – A) : 62.5 KVA Residential Building (Block – B) : 125 KVA Residential Building (Block – C) : 112 KVA For Common Services : 25 KVA <b>TOTAL : 359.5 KVA</b>
Parking	1. Community Hall : 10 Cars 2. Commercial Building (Block – A) : 12 Cars 3. Residential Building (Block – B) : 80 Cars 4. Residential Building (Block – C) : 112 Cars
Fresh Water Demand	128.32 KLD
Treated Water Demand	134.94 KLD
Total Water Demand	263.27 KLD
STP	170.00 KLD
Project cost	Rs. 26.61 Crores
No. of RWH Pits	3 Pits
Height	48 m

Particulars	Vasundhara Elegance	Vasundhara Megamart	Vasundhara Radiance
Built-Up Area <i>Total : 27929.00 Sq.m.</i>	10469.43 Sq. m.	2770.65 Sq. m.	14220.33 Sq. m.
Number of Floor	LG+G+10	LG+G+5	LG+G+14
Building Configuration	2 BHK : 10 3 BHK : 70	Shop on Street Level : 10 Shop above Street Level : 10 Office : 15	3 BHK : 112
Population	517	404	739
Water Demand	Domestic : 46.53 KLD Flushing : 23.27 KLD	Domestic : 10.11 KLD Flushing : 8.08 KLD	Domestic : 66.53 KLD Flushing : 33.26 KLD
STP	175 KLD		

Solid Waste	310.2 Kg	242.4 Kg	443.4 Kg
Rain Water Harvesting	1 Pit	1 Pit	1 Pit
Power Requirement	400 KVA	129 KVA	560 KVA
Power Back-Up	125 KVA	62.5 KVA	112 KVA
Renewal Power (Solar)	40 kW	20 kW	60 kW
Parking	80 Cars	12 Cars	112 Cars

**STATUTORY CLEARANCE :**

1	DFO Certificate	:	The DFO, Ranchi Division vide Letter No. 2725, Dated 28.09.2021 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
2	DFO wildlife	:	The DFO, Wildlife Ranchi Vide Letter No. 836, Dated 25.09.2021 certified that the proposed project site is outside Eco Sensitive Zone.
3	CO certificate	:	The CO, Argora, Ranchi vide Letter No. 89 (ii), Dated 03/02/2022 has mentioned plot no. of the project is not recorded as "Jangle Jhari" in R.S Khatiyar & Register II.
4	AAI NOC	:	Airport authority of India issued NOC vide NOC ID RANC/EAST/B/021116/120948, dated 01.03.2016.
5	Fire Department	:	A Fire Advisory has been issued by Fire Department, Jharkhand, Ranchi, vide letter no. 120, Dated 15.02.2016.
6	Building Plan	:	Building Plan Approved by Ranchi Municipal Corporation vide letter no. 566, [Case No. BP02/2014/930 (933/2014/A)], Dated 07/02/2017.

**Earlier this proposal was presented in SEAC on 14 - 18.09.2022 in which requisite documents were sought are under –**

- i. 03 blocks [(i) Vasundhara Elegance (ii) Vasundhara Megamart (iii) Vasundhara Radiance] are declared to have one common entrance. An undertaking from the resident/ stakeholders that there is no objection for common entrance to be submitted.
- ii. Utility details (water consumption, power consumption, STP, parking etc.) for all the 03 blocks to be provided separately.
- iii. The Grievances of stake holders should be addressed and approval to be obtained.

**The Project Authorities have submitted the above mentioned documents.**

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The PAs has proposed the remediation plan and natural & community resource augmentation plan before the Committee.

On the basis of above the State Level Expert Appraisal Committee (SEAC), Jharkhand recommended an amount of rupees 1,34,14,062.50 as per CPCB guidelines towards remediation plan and natural & community resource augmentation plan to be spent within a period 03 years. The details of summary of Natural resource and Environmental / Ecological Damage assessment with budgetary provision for expenditure under the below mention head for remediation :-

<b>NATURAL &amp; COMMUNITY RESOURCE AUGMENTATION PLAN (NCRAP)</b>	
<b>Particular</b>	<b>Amount (INR)</b>
Proposed 50 Sabji Kothi (@Rs. 20,000.00)	10,00,000.00
Scheme for apiculture or beekeeping	10,00,000.00
Environment and allied activities with the consultants of Ranchi DFO / Competent Authority	28,65,640.00
<b>Sub – Total</b>	<b>48,65,640.00</b>
<b>ASSESSMENT OF ECOLOGICAL DAMAGE &amp; REMEDIATION PLAN</b>	
<b>Particular</b>	<b>Amount (INR)</b>
Environment and allied activities with the consultants of Ranchi DFO / Competent Authority	50,48,422.50
5 Air Purifier in the city @ Rs. 7,00,000.00	35,00,000.00
<b>Sub-Total</b>	<b>85,48,422.50</b>
<b>Grand Total</b>	<b>1,34,14,062.50</b>

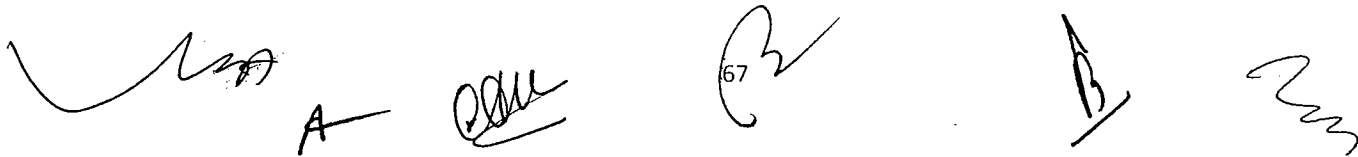
- I. The Committee visited the project site on 03.11.2022 to verify the details submitted by PAs.
- II. Total budgetary provision with respect to remediation plan and natural and community resource augmentation plan is Rs. **1,34,14,062.50**.
- III. Therefore, PAs shall be required to submit a bank guarantee of an amount of Rs. **1,34,14,062.50** towards remediation plan and natural and community resource augmentation plan with the Jharkhand State Pollution Control Board and evidence of the same submitted to SEIAA, Jharkhand prior to grant of EC.
- IV. The bank guarantee shall be released after successful completion of remedition plan, duly recommended by the SEAC, Regional Office - MoEF&CC, Govt. of India and approval of regulatory authority. Remcdiation plan shall be completed in 03 years with the consultation of Local / Urban Bodies / State Govt. Deptt.
- V. Approval / permission from CGWA shall be obtained before drawing ground water for the project activities, if applicable. Jharkhand State Pollution Control Board shall not issue Consent to Operate (CTO) until the PAs obtains such permission.

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- VI. PAs shall take necessary other clearances / permissions under various act and rules if any, from the respective authorities / departments.
- VII. STP of adequate capacity shall be established within the project permises.
- VIII. Energy conservation measures adhearing to part of ECBC norms shall be complied with.
- IX. The penalty of rupees 30,35,971.49 being 1% of the project cost and 0.25% of the turn over (Project cost = Rs. 26,61,00,000; turnover = Rs. 14,99,88,596) shall be submitted to Jharkhand State Pollution Control Board in the form of demand draft and evidence of the same to be submitted to SEIAA, Jharkhand prior to grant of EC.
- X. Action will be taken for the violation by the Jharkhand State Pollution Control Board under the provision of section 19 the Environment (Protection) Act, 1986.

**Based on the presentation made and information provided, the Committee decided that the proposal for (i) Vasundhara Elegance (ii) Vasundhara Megamart (iii) Vasundhara Radiance of M/s Vasundhara Homes Pvt. Ltd. at Mouza : Argora, Tehsil : Argora, Dist : Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II alongwith the following specific conditions :**

- I. The Project Authorities shall fulfill all the commitments in the letter no. VHPL/VEFOS/22-23/172, dated 10.10.2022 addressed to the Secretary of VEFOS which are as follows :
  - a. Construction of a separate septic tank in the campus of Vasundhara Elegance.
  - b. Rectification of Seepage all around (-1) & (0) level.
  - c. Providing a new cover over duct on roof of the building, repairing of Seepage and cleaning of outlet pipes in cut.
  - d. Demostration of Fire-fighting equipement installed and commissioned.
  - e. Providing a new pump.
  - f. Hand over of rooms in Basement floor.
  - g. Water treatment of roof top and repairing, wherever required.
- II. The Project Authorities shall fulfill all the commitments in the letter no. VHPL/SEIAA/1053/207, dated 04.11.2022 addressed to the Chairman, SEAC which are as follows :
  - a. Common entrance to the project named above will be provided for the passage with the consent of stake holders (viz. members of Vasundhara Elegance flat Owners Society).
  - b. The works will be carried out as listed in the letter under ref. no. VHPL/VEFOS/22-23/172 dated 10.10.2022 addressed to the Secretary of Vasundhara Elegance Flat Owners Society (in short V.E.F.O.S).
- III. As agreed & committed during the site visit on 03.11.2022 a common STP shall be installed in the premises of Vasundhara Rediance which will cater to the requirement of both Vasundhara Elegance & Vasundhara Rediance.

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- IV. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.
- V. All raw material to be stored only under covered shed.
- VI. PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.
- VII. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load. It is to be achieved by solar panels etc meeting ECBC norms.
- VIII. Trees should be developed & maintained not less than 15% of project area.
- IX. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.
- X. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- XI. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.
- XII. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- XIII. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.
- XIV. Sufficient number of EV fast charging point to be installed.

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6. Gurgain Stone Mine of M/s Lavanya Developers (Partner : Sri Ashok Kumar Dhanuka), Village : Gurgain, Tahsil : Ormanjhi, Distt. : Ranchi, Jharkhand (2.68 Ha).

(Proposal No. : SIA/JH/MIN /403233/2022)

Name of the consultant : Crystal Consultnats, Ranchi

This is a new project which has been taken for reappraisal on 03.11.2022

Project Category : B2 – Application for Environment Clearance

EC Application for : Boulder Stone: 1,52,279 Cu.M./ year i.e. 4,11,153 TPA

Project And Location Details:

Sl. No.	Parameter	Details
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1	Project Name	:	Gurgain Stone Mine
2	Lessee:	:	M/s Lavanya Developers, (Partner: Sri Ashok Kumar Dhanuka)
3	Lease Address	:	Mouza – Gurgain, Thana – Ormanjhi District – Ranchi, State – Jharkhand.
4	Lease Area	:	Ha: 2.68 ha. Acres: 6.62 Ac.
5	Type of Land	:	Non Forest – Rayati Land
6	Project Cost	:	89.60 Lakhs
7	EMP Budget	:	Capital: 8.00 Lakhs Recurring: 4.00 Lakh / year
8	CSR / CER Budget	:	Rs. 1.60 Lakhs
9	New or Expansion	:	New Project
10	Mineable Reserves	:	Cu. M.: 7,61,366 Tonnes: 20,55,688 Tonnes
11	Mine Life	:	5 years
12	Man power	:	60
13	Water Requirement	:	11.00 KLD (Drinking: 1.50 KLD, Dust Suppression: 8.00 KLD, Plantation: 1.50 KLD)
14	Water Source	:	Dug well for drinking & River water for dust suppression/ green belt
15	DG Set / power	:	Not required
16	Crusher	:	Not within mine lease area
17	Nearest Water Body	:	Swarnrekha River 7.00 KM
18	Nearest Habitation	:	Kute Village: 1.50 KM; Ormanjhi: 5.50 KM
19	Nearest Rail Station	:	Ranchi - 30.00 KM
20	Nearest Air Port	:	Ranchi - 34.00 KM
21	Nearest Forest	:	Not within 250m
22	Road & Highways	:	NH 33 – 04.00 KM; Ormanjhi – Gola Road – 3.00 KM

#### CO-ORDINATES

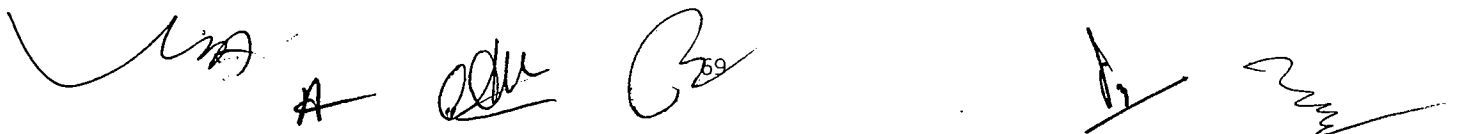
1	Latitude	From 23° 30' 26.77" N	To 23° 30' 34.14" N
2	Longitude	From 85° 31' 39.33" E	To 85° 31' 46.22" E

#### LAND DETAILS :

Khata No.	Plot No.
19	510 & 513
78	525 & 526

#### STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (Lol) has been issued by DMO, Ranchi vide letter no. 613/M, dated 25.07.2022.
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2	CO	:	The CO, Ormanjhi (Ranchi) vide letter no. 649(ii), dated 15.06.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Ranchi vide memo no. 677, dated 20.08.2022 certified that no other mining lease exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Ranchi vide letter no. 738, dated 24.08.2022 certified that the proposed project site is outside Eco Sensitive Zone.
5	DFO Forest Distance	:	DFO, Ranchi Division vide letter no. 2584, dated 15.06.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC – cum – District Magistrate, Ranchi vide letter no. 672/M, dated 18.08.2022 has informed that this project is part of District Survey Report (DSR) of Ranchi district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Ormanjhi (Ranchi) vide Letter no. 146 (ii), dated 07.02.2022 informed that Gram Sabha conducted on 28.01.2022.
8	Mine Plan Approval	:	District Mining Office, Ranchi vide Memo No. 648/M, dated 12.08.2022

### Working Details

1	Mining Method	:	Opencast Mechanized.
2	Quarry Area	:	Plan period – 1.88 ha.
3	Waste Generation	:	Plan period – 48,117 m <sup>3</sup>
4	Stripping Ratio	:	0.063 (overall stripping ratio)
5	Working Days	:	300
6	Benches: size & No	:	6m x 6m and 6 benches.
7	Elevation of Mine	:	606m AMSL
8	Ground Level Elevation	:	600m AMSL
9	Ultimate Working Depth	:	562 m AMSL
10	Water Table	:	556 m AMSL
11	Topography of Mine	:	Mild slope from North- West to South- East.
12	Explosive Requirement	:	41,115 kg/year
13	Diesel/Fuel requirement	:	NA (as DG set not required)

## Production Details

Year	Production of stone(Cum)	Production of stone (Tonne)	OB (Cum)	Bench AMSL in Meters
1 <sup>st</sup>	1,52,261	4,11,105	31,680	604 – 592
2 <sup>nd</sup>	1,52,271	4,11,132	16,437	598 – 586
3 <sup>rd</sup>	1,52,273	4,11,137	-	592 - 580
4 <sup>th</sup>	1,52,277	4,11,148	-	580 - 568
5 <sup>th</sup>	1,52,279	4,11,153	-	574 - 562
<b>Total</b>	<b>7,61,361</b>	<b>20,55,675</b>	<b>48,117</b>	

## Land Use

Sl	Pattern	Existing Land Use(Ha)	Proposed CurrentPlan Period (Ha)	Proposed Land Useat End of Life of Mine (Ha)	Land Usage at Conceptual Stage
1	Mining Area	0.00	1.880	1.880	Water Body
2	Dump	0.00	0.150	0.150	Green Belt
3	Office /Store	0.00	0.000	0.000	-
4	Crusher	0.00	0.000	0.000	-
5	Road	0.00	0.000	0.000	-
6	Safety Zone	0.00	0.650	0.650	Green Belt
7	Unutilized	2.680	0.000	0.000	-
	<b>TOTAL</b>	<b>2.680</b>	<b>2.680</b>	<b>2.680</b>	

## ENVIRONMENT MANAGEMENT

### Green Belt Development

Sl. No.	LOCATION	Area/Length	No. of Trees
1.	Safety Zone	: 0.650 ha	670 trees
2.	Other Reclaimed Area	: 0.150 ha	165 trees (Conceptual stage)
3.	Haul /Approach Road	: 0.05 km	55 trees

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

## Solid Waste Management

- There is no waste to be generated.

## Water Quality Management







- Mining is planned to above the ground water table. In case any intersection is likely, mining activities will be stopped 2m above the Ground Water Table.
- The rain water during rainy season will be collected in a pit and shall be used for dust suppression and plantation. Excess water, if any shall be discharged in natural stream after settling of suspended particles in the pit. Pump having required capacity will be installed to lift accumulated rain water from working pit and pumped to the settling tank.
- Garland drain shall be made in the outer part of safety barrier and the rain water shall be collected in garland drain and allowed to settle in a small pit for settling suspended particles before allowing discharge to natural drainage system. Check Pits and Retainer walls shall be constructed to prevent water flowing into the lease area from outside or from inside the lease area to the outside
- Domestic waste water will not be generated.
- It shall be ensured that quality of drinking water for the worker is hygienic and good sanitation system shall be made available.

## Air Quality Management

- Dust extractor or wet drilling shall be followed to control dust at source of emission during drilling.
- Sharp drill bits will be used for drilling and regrinding will be done periodically to reduce the dust generation.
- Controlled blasting to reduce dust emission and reduction in NOx emission
- All machineries and transport vehicles shall be properly maintained and pollution check will be done once in a year to keep the emissions from machineries and vehicle under control. Records for same to be maintained.
- Water sprinkling will be done on haul road to control emission of dust while transporting minerals and waste. Provision for water spray by tankers on 'kaccha' road shall be done.
- Water sprinkling at loading area shall be done
- Use of personal protective equipment like dust mask etc shall be put in practice
- Ambient air pollution monitoring shall be carried out every six months

## Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.

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- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Gurgain Stone Mine of M/s Lavanya Developers (Partner : Sri Ashok Kumar Dhanuka), Village : Gurgain, Tahsil : Ormanjhi, Distt. : Ranchi, Jharkhand (2.68 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III.

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Day 3 : November 04<sup>th</sup> , 2022 [Friday]

### Consideration of Proposals

1. Proposed Residential Complex "Richmond Park Residences" of M/s Manikaran Excel Ilika JV, Mauza : Latma, Block : Namkum, Distt. : Ranchi, Jharkhand.

(Proposal No. : SIA/JH/MIS /273143/2022)

This is a new project which has been taken for appraisal on 04.11.2022.

Project Category: 8(a) Category B2 – Application for Environment Clearance

EC Application for: Residential buildings: Total built-up area is 1,49,570 sq m.

Name of the consultant: P & M SOLUTION, Noida

Project and Location Details:

Parameters	Description
Plot Area	20245 m <sup>2</sup> (approx. 5 acre)
Project Cost	INR 247 Crores
Built-up Area	1,49,570 m <sup>2</sup>
Green Area	4497 sq m (22.2 % of Plot area)
Population	3887

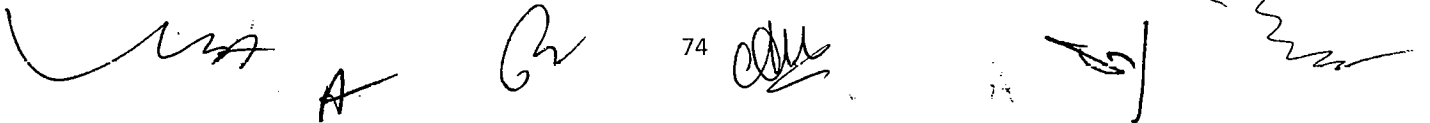
Water Requirement	358KLD
Fresh Water Requirement	218 KLD
Wastewater Generation	271 KLD
STP Capacity	300KLD
Total Municipal Waste	1331.45 kg/day
Power Requirement	7875 KVA (Jharkhand State Electricity board)
DG Sets	3 no.(s) 1500 KVA &1no. 750 KVA
RWH Pits	12 no.
Parking	831
Height of the building	53.7 m
Connecting road	Hatia Main Road (1.2 km, E) Dhurwa Road (2.0 km, W)
National Highway	NH-39 (3.2 km S)
Nearest Railway Station	Ranchi Junction Railway Station (7.1 km, NE) Hatia Railway Station (2.0 km, NE)
Airport	Birsa Munda Airport (3.5 km, NE)
Nearest Hospitals	Shree Superspeciality Hospital (1.67 km, NE)
Nearest Water Bodies	Dhurwa Dam (3.9 km, W) Ranchi Lake (8.2 km, NNE) Kanke Dam (10.7 km, N) Subarnarekha River( 4.7 km, NNE) Argora River (5.9 km, N)

#### CO-ORDINATES

1	Latitude	23°17'37.61"N
2	Longitude	85°17'54.53"E

#### LAND DETAILS :

Khata No.	Plot No.
39	1596
60	1631, 1632
79	1633
106	1597, 1599, 1604, 1605, 1606, 1607, 1612



117	1635, 1637
135	1582, 1636
136	1634

**STATUTORY CLEARANCES :**

1	DFO Forest Distance	:	DFO, Ranchi Forest division vide letter no. 4273, dated 22.12.2019 certified that the distance of notified forest is 1300 m from proposed project site.
2	DFO wildlife	:	DFO, Wildlife division vide letter no. 877, dated 23.09.2022 certified that the proposed project site is outside Eco Sensitive Zone.
3	CO certificate	:	The CO, Namkum (Ranchi) vide letter no. 29 (ii), dated 07.01.2019 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyani.
4	AAI NOC	:	Airport authority of India issued NOC vide NOC ID RANC/EAST/B/081121/569441, dated 09.09.2021.
5	Building Plan	:	Conceptual Plan submitted

**Water and waste water Requirement Details**

Category	Population/ Area (sq m)/Capacity	Standard (LPCD)	Water Requirement (KLD)	Fresh Water Requirement (KLD)	Recycled Water requiremen t(KLD)
<b>Domestic</b>					
Residents	3033	100	303	212	91
Staff	152	45	7	2.1	4.9
Visitors	303	15	5	3.5	1.5
<b>Total Domestic Water Demand</b>			<b>315</b>	<b>218</b>	<b>97</b>
Landscape	4497Sq.m	6 ltr/sqm	26		26
Fire Fighting			1	-	1
DG cooling	2250 KVA	0.9/l/hr	16	--	16
<b>Total</b>		-	<b>358</b>	<b>218</b>	<b>140</b>

**Waste water Requirement Details**

Category	Total Quantity (KLD)
Domestic water Req.	218
Flushing water Req.	97
Sewage generation (@80% of the Domestic + 100% flushing)	271

*(Handwritten signatures and initials)*

water requirement)	
<b>Capacity of STP</b>	<b>300</b>
Recovered water from STP (90% of Waste water)	244
1. Flushing	97
2. Landscaping	26
3. Fire Fighting	1
4. DG cooling	16
5. Road washing/sewer	104

### Solid Waste Requirement

Calculation of Solid Waste							
Type	Occupants (No.)	Total SW including landscape waste per head per day (Kg)	Wet Waste per head per day (Kg)	Dry Waste per head per day (Kg)	Total SW per day (Kg)	Total Wet Waste per day (Kg)	Total Dry Waste per day (Kg)
Residential	3488	0.60	0.25	0.35	2245.20	935.50	1309.70
Club House	145	0.30	0.15	0.15	43.50	21.75	21.75
Total	3887					957.25	1331.45
Requirement of OWC Capacity as rounded with apprehension (Kg/Day)							<b>1000.00</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development

- Combination of local trees and shrubs are planned within the project site.
- Total green area provided at the site is 4497 sq m (@ 22.2 % of plot area) which will enhance the beauty of the site and help combat air and noise pollution.
- The plant species will be selected on the basis of Guidelines for Developing Green Belts, CPCB March 2000.

### Solid Waste Management

#### During Construction Phase

- Construction yards are proposed for storage of construction material.
- Excavated top soil will be stored in temporary constructed soil bank and will be reused for landscaping of the project.
- Remaining soil will be utilized for refilling/road work/raising of site level at locations.

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- There will be "Refuse Containers" at site for the management of domestic waste generated by the construction labourers and these containers will be emptied at least once daily.
- Cement bags, waste paper and packing material (cardboard) will be sold off to recyclers.

#### **During Operation Phase**

- The solid waste will be segregated at source & collected.
- Adequate number of colored bins (green, white & Black) separate for bio-degradable, non-biodegradable and Hazardous waste are proposed to be provided at the strategic location within site.
- Bio-degradable (will be composted through organic waste converter).
- Recyclable wastes will be disposed to govt. or SPCB approved third party vendors.
- Dewatered sludge can be buried underground in a sanitary landfill. It also may be spread on agricultural land in order to make use of its value as a soil conditioner and fertilizer.
- The Hazardous waste generated will be managed as per the Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016.
- Horticultural Waste is composted and used for gardening purposes.

#### **Water Quality Management**

##### **During Construction Phase**

- The site drainage will be planned in such a way that there is no accumulation of water/wastewater within the project premises or in the vicinity of the site.
- Mobile toilets to be provided for construction Laborers.
- Generated waste water will be collected through tankers and dispose to septic tank for treatment.

##### **During Operation Phase**

- STP of capacity i.e. 300 KLD is proposed for treatment of wastewater.
- Treated waste water would be reused for Horticulture, flushing, fire fighting, Car Washing, Dust Suppression and Sweeping
- Use of water efficient plumbing fixtures to conserve water.
- Approx. 218KLD of fresh water is required during operational phase of the project.

#### **Air Quality Management**

- Warehouse/stock yard will be provided for storage of construction material
- Covering of stored construction materials with tarpaulin covers which will be resold to authorized construction material handling agency for reuse.
- Covering of trucks carrying construction materials.
- Dust suppression by water sprinkling.
- Adequate maintenance of construction equipment & vehicles.
- Wheel wash facility at the entry/exit of the site to prevent dust emissions.
- Periodical Ambient Air Quality Monitoring.
- PUC Certified vehicles.
- Glow signs Speed Limits to 20 kmph to reduce emissions on site will be displayed at the important junctions.

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## Energy conservation

Solar Panels and LED lights will be used in Street Lights, Common area, Pumping area (solar panels will be used to save around 5.54 % of the total power requirement).

During the presentation the following documents were sought :

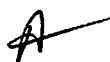
- i. Detailed water balance to be provided.
- ii. Location of waste collection center to be provided on the layout plan.
- iii. Details of plantation including name & number of species to be provided.
- iv. A clear google map with coordinates within 500 m to be provided .
- v. Details of CER budget with breakup activities to be provided.

The Project Authorities have submitted the above mentioned documents.

Based on the presentation made and information provided, the Committee decided that the proposal for Proposed Residential Complex "Richmond Park Residences" of M/s Manikaran Excel Ilika JV, Mauza : Latma, Block : Namkum, Distt. : Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II alongwith the following specific conditions :

- I. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.
- II. All raw material to be stored only under covered shed.
- III. PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.
- IV. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load. It is to be achieved by solar panels etc meeting ECBC norms.
- V. Trees should be developed & maintained not less than 15% of project area.
- VI. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.
- VII. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- VIII. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.
- IX. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- X. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.
- XI. Sufficient number of EV fast charging point to be installed.

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2. Proposed Residential Project "K.B. Tower" of M/s Bhusan Promoters and Developers Private Limited, Village : Hehal, Mauza : Hehal, Thana : Sukhdev Nagar, Distt. : Ranchi, Jharkhand.

(Proposal No. : SIA/JH/INFRA2 /401598/2022)

Name of the consultant: P & M Solution, Noida

This is a new project which has been taken for appraisal on 04.11.2022.

Project is classified as Category 8(a) as per EIA Notification as the built-up area is less than 1,50,000 sqm. and development area is less than 50 ha.

**Project Category: 8(a) Category B2 – Application for Environment Clearance**

**EC Application for: Proposed Residential project: Total built-up area is 48386.69 sq m.**

**Project and Location Details :**

Parameters	Description
Plot Area	10006.65 sq. m. (approx. 2.47 acre)
Project Cost	INR 76 Crores
Built-up Area (@ 2.87 F.A.R)	48386.69 sq. m.
Green Area (@ 40.98 % of plot area)	4054.99 sq m
Population	1139
Water Requirement	122KLD
Fresh Water Requirement	73 KLD
Wastewater Generation	89 KLD
STP Capacity	100 KLD
Total Municipal Waste	533 kg/day
Power Requirement	2000 KVA (Jharkhand State Electricity board)
DG Sets	3 no. of DG set of Total 740 KVA (1*380+2*180)
RWH Pits	05 no.
Parking Area	591 ECS (2-wheelers:295 , Car parking: 268, Visitor's Car Parking : 25, Other vehicles : 3)
Connecting road	Itki Road (0.13 km,N) Ranchi Road (0.55 km,N) SH 2 (2.72 km , E)
National Highway	NH 20 (5.92 km, E)

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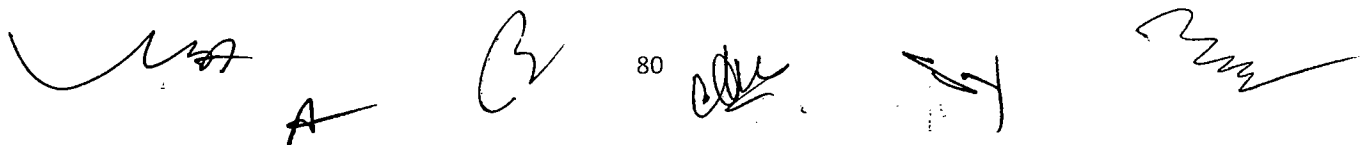
Nearest Railway Station	Ranchi Junction Railway Station (5.75 km, SE)
Airport	Birsa Munda Airport (7.66 km, SE)
Nearest Hospitals	Vivekananda Hospital (1.91 km, NE)
Nearest Water Bodies	Dhurwa Dam (9.29 km, SW) Ranchi Lake (2.91 km, SE) Kanke Dam (2.45 km, NE) Subernrekha River (5.72 km, SE) Jumar River (8.51 km, N) Chota Jharna (5.17 km, N)

**CO-ORDINATES :**

S.No	Latitude	Longitude
1	23°22'41.76"N	85°17'19.27"E
2	23°22'45.50"N	85°17'20.51"E
3	23°22'46.08"N	85°17'20.64"E
4	23°22'45.39"N	85°17'20.70"E
5	23°22'40.98"N	85°17'20.98"E
6	23°22'47.67"N	85°17'21.22"E
7	23°22'41.23"N	85°17'21.73"E
8	23°22'46.36"N	85°17'21.81"E
9	23°22'47.74"N	85°17'21.95"E
10	23°22'45.42"N	85°17'23.10"E
11	23°22'44.79"N	85°17'23.13"E

**Area Summary :**

S. No.	Description	Area (Sq M)
A.	<b>Total plot area</b>	<b>10006.65</b>
B.	Deduction for Balance Plot Area(from Gross Plot Area)	112.73
C.	<b>Net Plot Area</b>	<b>9893.92</b>
D.	Proposed Ground Coverage (@26.22% of plot area)	2594.31
E.	Permissible FAR/ FSI (3.00)	30019.95
F.	<b>Proposed FAR (@ 2.87)</b>	<b>28781.3</b>
G.	Non FAR Area (Strain case, Lift, Balcony, Ramp, Accessory Use, Basement Parking)	19605.39
H.	<b>Built-up Area (F+G)</b>	<b>48386.69</b>
I.	Green Area (@40.98% of net plot area)	4054.99
J.	Drive way & Open Area/paved area	839.43
K.	Height (m)	43.75
L.	No of Dwelling Units	220


  
 A B 80

**Block Wise Dwelling Units Details :**

S. No.	Building Blocks (Residential Building)	Number of Floors	DU'S
1.	Residential Block A (B1+B2+GF+13)	14	220
	<b>Total</b>		<b>220</b>

**LAND DETAILS :**

Khata No.	Plot No.
03	398
128	268
180	265
186	267

**STATUTORY CLEARANCES :**

1	DFO Forest Distance	:	DFO, Ranchi Forest division vide letter no. 3662, dated 29.08.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
2	DFO wildlife	:	DFO, Wildlife Ranchi vide letter no. 735, dated 24.08.2022 certified that the proposed project site is outside Eco Sensitive Zone.
3	CO certificate	:	The CO, Hehal Ranchi vide letter no. 740(ii), dated 10.09.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in Khatiyon & Register II.
4	AAI NOC	:	Airport authority of India issued NOC vide NOC ID RANC/EAST /B/073118/323962, dated 21.08.2018.
5	Fire Department	:	A fire advisory has been issued by Fire Department, Jharkhad, Ranchi vide vide letter no. 1237/Tech./2020, dated 09.06.2020.
6	Building Plan	:	Conceptual Plan submitted.

**Water and waste water Requirement Details**

Category	Population/ Area (sq m)/Capacity	Standard (LPCD)	Water Requirement (KLD)	Fresh Water Requirement (KLD)	Recycled Water requirement (KLD)
<b>Domestic</b>					
Residents	990	100	99	69	30
Staff	50	45	3	2.1	0.9
Visitors	99	15	2	1.4	0.6

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<b>Total Domestic Water Demand</b>			<b>104</b>	<b>73</b>	<b>31</b>
Landscape	4054.99 sqm	3 ltr/sqm	12	-	12
Fire Fighting			1	-	1
DG cooling	740 KVA(1*380+ 2*180)	0.9 l/kVA/hr	5	-	5
<b>Total</b>		-	<b>122</b>	<b>73</b>	<b>49</b>

Category	Total Quantity (KLD)
Domestic water Req.	73
Flushing water Req.	31
Sewage generation (@80% of the Domestic + 100% flushing water requirement)	89
<b>Capacity of STP</b>	<b>100</b>
Recovered water from STP (90% of Waste water)	80
1. Flushing	31
2. Landscaping	12
3. Fire Fighting	1
4. DG cooling	5
5. Road washing/sewer	31

### Solid Waste Requirement

S. No	Description	Occupancy/ Area	kg/capita/ day	Total Solid Waste Generation (kg/day)	Recyclable (kg/day)	Non- Recyclable (kg/day)
1.	Residents	990	0.5	495	396	99
2.	Staff	50	0.25	12.5	10	2.5
3.	Visitors	99	0.15	14.85	11.88	2.97
4.	Landscape waste	1.002 acres	1 kg/acres	1	1	-
5.	STP sludge	150 KLD	--	10	8	2
<b>Total Waste Generated</b>				<b>533</b>	<b>427</b>	<b>106</b>

### ENVIRONMENT MANAGEMENT

#### Green Belt Development

- Combination of local trees and shrubs are planned within the project site.
- Total green area provided at the site is 4054.99 sq m (40.98 % of the net plot area). Out of which Green belt area is 1544.27 sq.m i.e. 16% of the net plot area and landscape area is

2510.72 sq.m i.e. 25.37% of the net plot area which will enhance the beauty of the site and help combat air and noise pollution.

- The plant species will be selected on the basis of Guidelines for Developing Green Belts, CPCB March 2000.

### **Solid Waste Management**

#### **During Construction Phase**

- Construction yards are proposed for storage of construction material.
- Excavated top soil will be stored in temporary constructed soil bank and will be reused for landscaping of the project.
- Remaining soil will be utilized for refilling/road work/raising of site level at locations.
- There will be "Refuse Containers" at site for the management of domestic waste generated by the construction labourers and these containers will be emptied at least once daily.
- Cement bags, waste paper and packing material (cardboard) will be sold off to recyclers.

#### **During Operation Phase**

- The solid waste will be segregated at source & collected.
- Adequate number of colored bins (green, white & Black) separate for bio-degradable, non-biodegradable and Hazardous waste are proposed to be provided at the strategic location within site.
- Bio-degradable (will be composted through organic waste converter).
- Recyclable wastes will be disposed to govt. or SPCB approved third party vendors.
- Dewatered sludge can be buried underground in a sanitary landfill. It also may be spread on agricultural land in order to make use of its value as a soil conditioner and fertilizer.
- The Hazardous waste generated will be managed as per the Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016.
- Horticultural Waste is composted and used for gardening purposes.

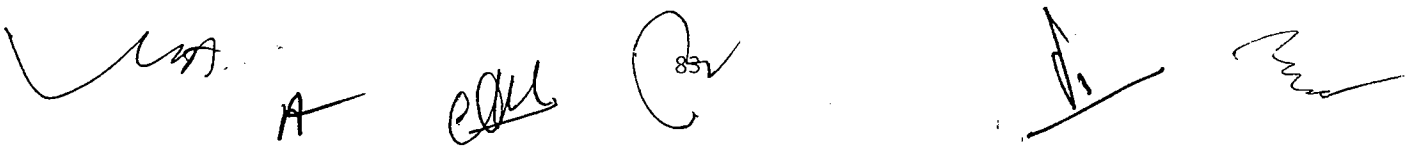
### **Water Quality Management**

#### **During Construction Phase**

- The site drainage will be planned in such a way that there is no accumulation of water/wastewater within the project premises or in the vicinity of the site.
- Mobile toilets to be provided for construction Laborers.
- Generated waste water will be collected through tankers and dispose to septic tank for treatment.

#### **During Operation Phase**

- STP of capacity i.e. 100 KLD is proposed for treatment of wastewater.
- Treated waste water would be reused for Horticulture, DG/HVAC cooling, flushing, fire fighting.
- Use of water efficient plumbing fixtures to conserve water.
- Approx. 73 KLD of fresh water is required during operational phase of the project.

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### **Air Quality Management**

- Warehouse/stock yard will be provided for storage of construction material
- Covering of stored construction materials with tarpaulin covers which will be resold to authorized construction material handling agency for reuse.
- Covering of trucks carrying construction materials.
- Dust suppression by water sprinkling.
- Adequate maintenance of construction equipment & vehicles.
- Wheel wash facility at the entry/exit of the site to prevent dust emissions.
- Periodical Ambient Air Quality Monitoring.
- PUC Certified vehicles.
- Glow signs Speed Limits to 20 kmph to reduce emissions on site will be displayed at the important junctions.

### **Energy conservation**

- Energy will be conserved via solar power & LED of at least 5 % of the total power requirement.

### **Undertaking**

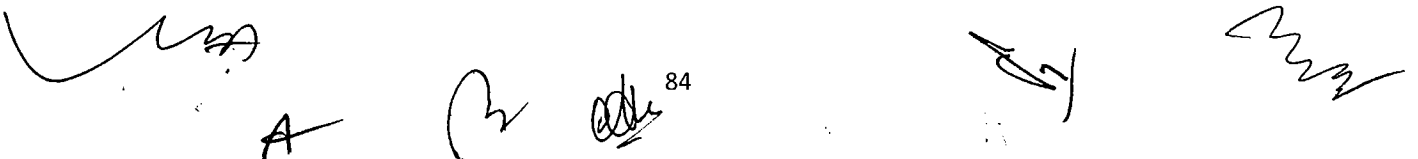
1. An affidavit stating that no construction work.
2. An undertaking that 116 m<sup>3</sup>/day recycles waste water generated at Proposed Residential Project "KB Tower" located at Khata no. 3,180,186,128 & Plot no.398,265,267,268, Mouza-Hehal, Tehsil-Hehal, Thana-Sukhdev Nagar Ranchi, District-Ranchi, State-Jharkhand.
3. An undertaking that 2000 KVA Power requirement in Proposed Residential Project "KB Tower" located at Khata no. 3,180,186,128 & Plot no. 398,265,267,268, Mouza-Hehal, Tehsil-Hehal, Thana-Sukhdev Nagar Ranchi, District-Ranchi, State-Jharkhand.

### **During the presentation the following documents were sought :**

- i. Detailed water balance to be provided.
- ii. Location of waste collection center to be provided on the layout plan.
- iii. Details of plantation including name & number of species to be provided.
- iv. A clear google map with coordinates within 500 m to be provided .
- v. Details of CER budget with breakup activities to be provided.

### **The Project Authorities have submitted the above mentioned documents.**

Based on the presentation made and information provided, the Committee decided that the proposal for Proposed Residential Project "K.B. Tower" of M/s Bhusan Promoters and Developers Private Limited, Village : Hehal, Mauza : Hehal, Thana : Sukhdev Nagar, Distt. : Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II alongwith the following specific conditions :

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- I. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.
- II. All raw material to be stored only under covered shed.
- III. PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.
- IV. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load. It is to be achieved by solar panels etc meeting ECBC norms.
- V. Trees should be developed & maintained not less than 15% of project area.
- VI. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.
- VII. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- VIII. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.
- IX. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- X. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.
- XI. Sufficient number of EV fast charging point to be installed.

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**3. Commercial Building of "City Select Developers" of M/s City Select Developers, Village : Hindpiri, Tehsil : Ranchi, Distt. : Ranchi, Jharkhand.**

**(Proposal No. : SIA/JH/INFRA2/ 403009/2022)**

**Name of the consultant: P & M Solution, Noida**

**Application for: Commercial buildings: Total built-up area is 20443.22 sq m.**

This is a case of violation which has been taken for appraisal on 04.11.2022.

The project is a violation case since the project proponent has started the construction without prior Environmental Clearance from State Environment Impact Assessment Authority (SEIAA), Jharkhand.



However, The Honourable Supreme court in its order dated 9<sup>th</sup> December 2021 In the matter of the Civil appeal No 7576-7577 of 2021 in the Electro steel Steels Limited Vs Union of India and Ors in its para 93 has inter- alia observed the following :

*“The interim order passed by the Madras high Court appears to be misconceived. However, this court is not hearing an Appeal from that interim order. The interim stay passed by the Madras High court can have no application of operations of the Standard Operating Procedure to the projects in territories beyond the territorial jurisdiction of Madras High court. However, final decision may have been taken in accordance with the Orders/ Rules prevailing prior to 7th July, 2021.”*

Thus, the SEIAA, Jharkhand, in the light of Ho’ble Supreme Court order dated 9<sup>th</sup> December 2021, Office Memorandum no. F.No.22-21/2020-IA.III[E 138949] dated 28.01.2022 of MoEF&CC, Govt. of India and Standard Operating Procedure (SOP) issued by MoEF&CC, Govt. of India vide its file number 22-21/2020-IA-III, dated 07.07.2021, the matter has been taken for consideration & recommendation of EC for violation projects.

**Project Category : 8 (a) Category B2 – (at par with B1 being violation case)**

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 96<sup>th</sup> meeting held on 16-19.08.2022 and SEIAA, Jharkhand has approved the **violation ToR** in 97<sup>th</sup> meeting held on 25<sup>th</sup> & 26<sup>th</sup> August, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. 255, date 02.09.2022. The final EIA / EMP submitted by PAs to SEIAA on 20.10.2022 and received by SEAC on 28.10.2022.

**Project and Location Details :**

Parameters	Description
Plot Area	9286.76 m <sup>2</sup> (approx. 2.29 acre)
Project Cost	Rs. 11.58 Crores
EMP cost	Rs. 49 Lakh (Capital cost)
CSR cost	Rs. 0.232 Crores
Built-up Area	20443.22 m <sup>2</sup>
Green Area	1373.38 m <sup>2</sup> (@ 15% of plot area)
Population	2454
Water Requirement	70 KLD
Fresh Water Requirement	19 KLD
Wastewater Generation	57 KLD
STP Capacity	70 KLD
Total Municipal Waste	454 kg/day

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Power Requirement	1500 KVA (Jharkhand State Electricity board)
DG Sets	1 no. of DG set of Total 600 kVA
RWH Pits	02 no.
Height of the building	38 m
Parking	450 ECS and 5404.8 sq.m
Connecting road	Mahatama Gandhi Main Road (Abuts site, E)
National Highway	NH 20 (2.49 km, E)
Nearest Railway Station	Ranchi Railway station, 1.25 km, SE
Airport	Birsa Munda Airport, 4.33 km, S
Nearest Hospitals	St. Barnabas Hospital (0.96 km, NE)
Nearest Water Bodies	Ranchi Lake (1.17 km, NW) Suberneka River (4.30 km. E) Dhruwa Dam (9.65 km, SW) Potpoto River (7.52 km, N) Jumar River (9.87 km, N)

**CO-ORDINATES :**

1	Latitude	:	From 23°21'23.92"N	To 23°21'21.06"N
2	Longitude	:	From 85°19'22.62"E	To 85°19'26.75"E

**Khata no. & Plot no. of the project :**

Khata no.	M.S Plot No.
74/1	1785

**Area Summary :**

S. No.	Description	Area (Sq M) Phase I
A.	<b>Plot area</b>	<b>9286.76</b>
B.	Total plot as per deed	9155.91
C.	<b>Road widening area</b>	<b>295.79</b>
D.	<b>Plot area after R/W</b>	<b>8860.12</b>
D.	Proposed Ground Coverage (@28.23% of plot area)	2501.86
E.	<b>Proposed FAR (@ 2)</b>	<b>14182.18</b>
F.	Non FAR Area (including Basement area)	6261.05



G.	Basement Basement 2 Semi Basement 1	5715.85 2788.48 2927
H.	<b>Built-up Area</b>	<b>20443.22</b>
I.	Green Area (@15% of plot area as per deed)	1373.38
J.	Height	38 m
K.	No. of shops and offices in commercial area	60

**STATUTORY CLEARANCES :**

1	DFO Forest Distance	:	DFO, Ranchi Forest division vide letter no. 3329, dated 03.08.2022 certified that the distance of reserved/protected forest is more than 250 m from project site.
2	DFO wildlife	:	DFO, Wildlife Ranchi division vide letter no. 676, dated 01.08.2022 certified that the proposed project site is outside Eco Sensitive Zone.
3	CO certificate	:	The CO, Shahar, Ranchi vide memo no. 654 (ii) dated 06.08.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in M.S / R.S. Khatiyar & Register II.
4	AAI NOC	:	Airport authority of India issued NOC vide NOC ID no. RANC/EAST /B/051717/220193 dated 17.05.2017
5	Fire Department	:	A Fire Advisory has been issued by Fire Department, Jharkhand Ranchi vide letter no. 2886/Tech/2021, dated 15.09.2021.
6	Building Plan	:	Ranchi Municipal Corporation has sanctioned the building plan vide letter no. BP/02/2014/220(265/2014/C) dated 11.01.2018
7	Occupancy certificate	:	Obtained on 11/OCT/2019 vide OC No – 265/2014/C_OC1 from Ranchi Municipal Corporation.

**Water and waste water Requirement Details**

Category	Population/ Area ( sqm ) /Capacity	Standard (LPCD)	Water Requirement (KLD)	Fresh Water Requirement (KLD)	Recycled Water requirement (KLD)
<b>Domestic</b>					
Staff	800	45	36	11	25
Visitors	1654	15	25	8	17

<b>Total Domestic Water Demand</b>			<b>61</b>	<b>19</b>	<b>42</b>
Green area	1373.38 Sq.m	3 ltr/sqm	4	-	4
Fire Fighting			1	-	1
DG cooling/HVAC			4	--	4
<b>Total</b>		-	<b>70</b>	<b>19</b>	<b>51</b>

Category	Total Quantity (KLD)
Domestic water Req.	19
Flushing water Req.	42
Sewage generation (@80% of the fresh + 100% flushing water requirement)	57
Capacity of STP	70
Recovered water from STP (90% of Waste water)	51
1. Flushing	42
2. Landscaping	4
3. Fire Fighting	1
4. DG cooling	4

### Solid Waste Requirement

S. No	Description	Occupancy/Area	kg/capita/day	Total Solid Waste Generation (kg/day)	Recyclable (kg/day)	Non Recyclable (kg/day)
2.	Staff	800	0.25	200	160	40
3.	Visitors	1654	0.15	248	198	50
4.	Landscape waste	0.33 acres	0.2 kg/acres	1	1	-
5.	STP sludge	70 KLD	--	5		5
<b>Total Waste Generated</b>				<b>454</b>	<b>359</b>	<b>95</b>

### ENVIRONMENT MANAGEMENT

#### Green Belt Development

- Combination of local trees and shrubs are planned within the project site.
- Green area will be provided in 1373.38 m<sup>2</sup> (@ 15% of plot area) which will enhance the beauty of the site and help combat air and noise pollution.
- The plant species will be selected on the basis of Guidelines for Developing Green Belts, CPCB March 2000.

#### Solid Waste Management

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### **During Construction Phase**

- Construction yards are proposed for storage of construction material.
- Excavated top soil will be stored in temporary constructed soil bank and will be reused for landscaping of the project.
- Remaining soil will be utilized for refilling/road work/raising of site level at locations.
- There will be "Refuse Containers" at site for the management of domestic waste generated by the construction labourers and these containers will be emptied at least once daily.
- Cement bags, waste paper and packing material (cardboard) will be sold off to recyclers.

### **During Operation Phase**

- The solid waste will be segregated at source & collected.
- Adequate number of colored bins (green, white & Black) separate for bio-degradable, non-biodegradable and Hazardous waste are proposed to be provided at the strategic location within site.
- Bio-degradable (will be composted through organic waste converter).
- Recyclable wastes will be disposed to govt. or SPCB approved third party vendors.
- Dewatered sludge can be buried underground in a sanitary landfill. It also may be spread on agricultural land in order to make use of its value as a soil conditioner and fertilizer.
- The Hazardous waste generated will be managed as per the Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016.
- Horticultural Waste is composted and used for gardening purposes.

### **Water Quality Management**

#### **During Construction Phase**

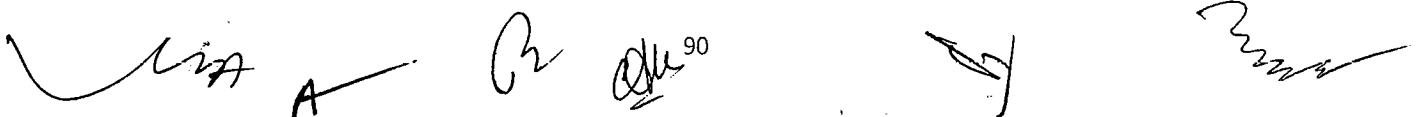
- The site drainage will be planned in such a way that there is no accumulation of water/wastewater within the project premises or in the vicinity of the site.
- Mobile toilets to be provided for construction Laborers.
- Generated waste water will be collected through tankers and dispose to septic tank for treatment.

#### **During Operation Phase**

- STP of capacity i.e. 70 KLD is proposed for treatment of wastewater.
- Treated waste water would be reused for Horticulture, DG cooling/HVAC, flushing, fire fighting
- Use of water efficient plumbing fixtures to conserve water.
- Approx. 19 KLD of fresh water is required during operational phase of the project.

### **Air Quality Management**

- Warehouse/stock yard will be provided for storage of construction material
- Covering of stored construction materials with tarpaulin covers which will be resold to authorized construction material handling agency for reuse.
- Covering of trucks carrying construction materials.
- Dust suppression by water sprinkling.
- Adequate maintenance of construction equipment & vehicles.
- Wheel wash facility at the entry/exit of the site to prevent dust emissions.

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- Periodical Ambient Air Quality Monitoring.
- PUC Certified vehicles.
- Glow signs Speed Limits to 20 kmph to reduce emissions on site will be displayed at the important junctions.

### Energy conservation

Solar Panels will be used in Street Lights, Common area, Pumping area (solar panels will be used to save around 10 % of the total power requirement).

During the presentation the following documents were sought :

- Solid waste generation and management details to be provided.
- Copy of the ecology and biodiversity study carried out by the EB expert.

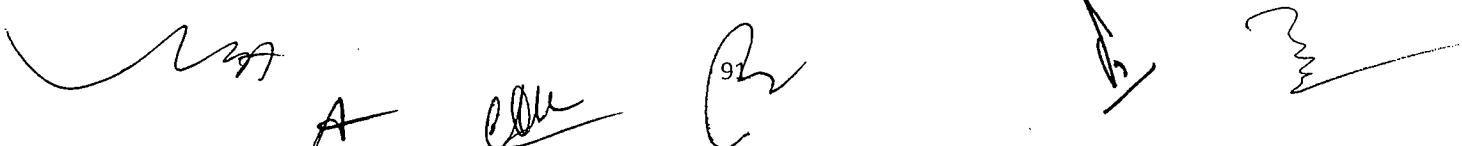
The Project Authorities have submitted the above mentioned documents.

The PAs has proposed the remediation plan and natural & community resource augmentation plan before the Committee.

On the basis of above the State Level Expert Appraisal Committee (SEAC), Jharkhand recommended an amount of rupees 12,81,250 as per CPCB guidelines towards remediation plan and natural & community resource augmentation plan to be spent within a period 03 years. The details of summary of Natural resource and Environmental / Ecological Damage assessment with budgetary provision for expenditure under the below mention head for remediation :-

Sr. No.	Major Environment	Details	Cost Rs in Lacs
1	Ecological Environment	Green belt development in consultation with DFO and authorities.	7
2	Water Environment	Providing water filter in near by school	2
3	Energy Conservation	Providing Solar Panel in nearby area	2
4	Social Environment	Environmental awareness campaign in nearby area like school and institution	1,81,250
TOTAL COST RS. IN LACS			12,81,250

- The Committee visited the project site on 03.11.2022 to verify the details submitted by PAs.
- Total budgetary provision with respect to remediation plan and natural and community resource augmentation plan is Rs. 12,81,250.



- III. Therefore, PAs shall be required to submit a bank guarantee of an amount of Rs. 12,81,250 towards remediation plan and natural and community resource augmentation plan with the Jharkhand State Pollution Control Board and evidence of the same submitted to SEIAA, Jharkhand prior to grant of EC.
- IV. The bank guarantee shall be released after successful completion of remediation plan, duly recommended by the SEAC, Regional Office - MoEF&CC, Govt. of India and approval of regulatory authority. Remediation plan shall be completed in 03 years with the consultation of Local / Urban Bodies / State Govt. Deptt.
- V. Approval / permission from CGWA shall be obtained before drawing ground water for the project activities, if applicable. Jharkhand State Pollution Control Board shall not issue Consent to Operate (CTO) until the PAs obtains such permission.
- VI. PAs shall take necessary other clearances / permissions under various act and rules if any, from the respective authorities / departments.
- VII. STP of adequate capacity shall be established within the project premises.
- VIII. Energy conservation measures adhering to part of ECBC norms shall be complied with.
- IX. The penalty of rupees 1,42,660 being 1% of the project cost incurred (Rs. 1,42,65,867.40) shall be submitted to Jharkhand State Pollution Control Board in the form of demand draft and evidence of the same to be submitted to SEIAA, Jharkhand prior to grant of EC.
- X. Action will be taken for the violation by the Jharkhand State Pollution Control Board under the provision of section 19 the Environment (Protection) Act, 1986.

**Based on the presentation made and information provided, the Committee decided that the proposal for Commercial Building of "City Select Developers" of M/s City Select Developers, Village : Hindpiri, Tehsil : Ranchi, Distt. : Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II alongwith the following specific conditions :**

- I. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.
- II. All raw material to be stored only under covered shed.
- III. PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.
- IV. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load. It is to be achieved by solar panels etc meeting ECBC norms.
- V. Trees should be developed & maintained not less than 15% of project area.
- VI. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.
- VII. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.



- VIII. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.
- IX. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- X. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.
- XI. Sufficient number of EV fast charging point to be installed.

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4. **R.Ali's Grand Mall (Commercial Building comprising of shopping Mall and Residential Area) " of M/s APJ Express, Village : Hindpiri, Tehsil : Hindpiri, Distt. : Ranchi, Jharkhand.**

**(Proposal No : SIA/JH/INFRA2/403775/2022).**

**Name of the consultant: P & M Solution, Noida**

**Application for: Commercial buildings:Total built-up area of 57,513.87 m2**

This is a case of violation which has been taken for appraisal on 04.11.2022.

The project is a violation case since the project proponent has started the construction without prior Environmental Clearance from State Environment Impact Assessment Authority (SEIAA), Jharkhand.

However, The Honourable Supreme court in its order dated 9<sup>th</sup> December 2021 In the matter of the Civil appeal No 7576-7577 of 2021 in the Electro steel Steels Limited Vs Union of India and Ors in its para 93 has inter- alia observed the following :

*"The interim order passed by the Madras high Court appears to be misconceived. However, this court is not hearing an Appeal from that interim order. The interim stay passed by the Madras High court can have no application of operations of the Standard Operating Procedure to the projects in territories beyond the territorial jurisdiction of Madras High court. However, final decision may have been taken in accordance with the Orders/ Rules prevailing prior to 7th July, 2021."*

Thus, the SEIAA, Jharkhand, in the light of Ho'ble Supreme Court order dated 9<sup>th</sup> December 2021, Office Memorandum no. F.No.22-21/2020-IA.III[E 138949] dated 28.01.2022 of MoEF&CC, Govt. of India and Standard Operating Procedure (SOP) issued by MoEF&CC, Govt. of India vide its file number 22-21/2020-IA-III, dated 07.07.2021, the matter has been taken for consideration & recommendation of EC for violation projects.

**Project Category : 8 (a) Category B2 – (at par with B1 being violation case)**



The State Expert Appraisal Committee, Jharkhand deliberated the project during its 95<sup>th</sup> meeting held on 15-22.07.2022 and SEIAA, Jharkhand has approved the **violation ToR** in 96<sup>th</sup> meeting held on 26<sup>th</sup>, 27<sup>th</sup> & 28<sup>th</sup> July, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. 225, date 06.08.2022. The final EIA / EMP submitted by PAs to SEIAA on 26.10.2022 and received by SEAC on 28.10.2022.

APJ Express (A JV of APJ Properties and Express Residency) has developed a commercial cum residential project "R.ali Magnum Mall" located at Revised Rali Magnum Mall at Plot No-670, 672 and 673 (Holding No-239 (old) Corresponding to new holding No 365 & 364 and holding No 241 (old), New Holding No. 383, Ward No-III (old), 13 (New), Thana No. 209, Khata No 64 & Revisional Survey Plot Nos 89 & 90, Under Khata No.-64, Corresponding to Municipal Survey Plot Nos.-704, 705 & 706, situated at Mauza Hindpiri, Rali Building Main Road, Hindpiri, Ranchi. Project involves development of commercial area including cinema hall & shopping mall and residential area having built-up area of 57,513.87 sqm.

**Project and Location Details :**

Parameters	Description
Plot Area	12071.48 Sqm
Project Cost	INR 30 Crores
Built-up Area	57,513.87 m <sup>2</sup>
Green Area	1207 m <sup>2</sup> (@10% of plot area)
Population	3998
Water Requirement	160 KLD
Fresh Water Requirement	78 KLD
Wastewater Generation	102 KLD
STP Capacity	110.0 KLD
Total Municipal Waste	776kg/day
Power Requirement	2000 KVA (Jharkhand State Electricity board)
DG Sets	2 no. of DG set of Total 1000 kVA
RWH Pits	03
Parking	Cars: 391 Scooter: 82, Cycle: 164
Connecting road	The project site is well connected with Mahatma Gandhi Main Road.
National Highway	NH-20 km

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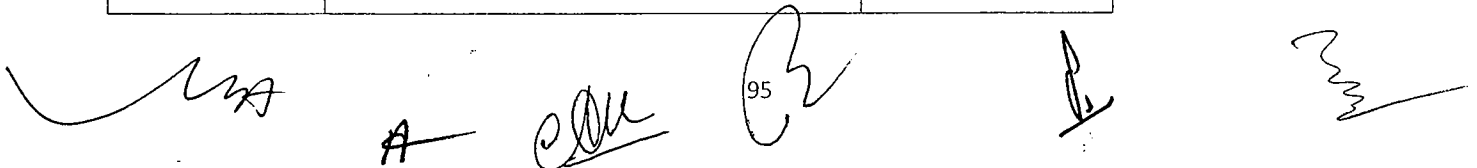
Nearest Railway Station	Ranchi Railway station, 1.7 km, S
Airport	Birsa Munda Airport,(4.2 km, S)
Nearest Hospitals	Hyatt Multispeciality Hospital & Research Centre (180 m, S) Raj Hospital (560 m, S)
Nearest Water Bodies	Lake (700 m, NW)

**Area Summary :**

S. No.	Description	Area (sq m) Phase I
1.	Plot Area	12071.48
2.	Proposed Ground Coverage	6996.36
3.	Proposed FAR (@3.279 of plot area)	39,585.98
	Commercial	35,535.23
	Residential	4,050.75
4.	Non-FAR Area including basement area	17,927.89
5.	Basement	14927.13
	Upper	8263.93
	Lower	6663.2
6.	Built-up Area	57,513.87
	Commercial	52,023.93
	Residential	5,489.94
7.	Green Area (@ 10% of plot area)	1207
8.	Height	28.01
9.	No of flats in residential area (on 6th floor of Main commercial building)	4
10.	No of shops in commercial area	165
11.	No of Offices in commercial area	21

**Land Details :**

Khata no.	MS Plot no.	RS Plot no.
64	670, 671, 672, 673, 704, 705, 706	89 & 90


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**CO-ORDINATES**

1	Latitude	From 23°21'42.87"N	To 23°21'40.87"N
2	Longitude	From 85°19'28.31"E	To 85°19'33.35"E

**Statutory Clearances :**

1	DFO Certificate	:	Divisional Forest Officer (DFO), Ranchi Forest Division vide letter no. 1927, dated 22.04.2022 certified that distance of Reserved Forest/Protected forest is more than 250 meter from project site.
2	DFO wildlife	:	DFO, Wild life Ranchi division vide letter no. 368, dated 20.04.2022 certified that the proposed project site is outside Eco Sensitive Zone.
3	CO certificate	:	The CO, Shahar, Ranchi vide letter no. (B) 389, dated 08.05.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyar & Register II.
4	Fire Department	:	A Fire Advisory has been issued by Fire Department, Jharkhand Ranchi vide letter no. 535, dated 25.08.2009.
5	Building Plan	:	Building Plan approved by RMC vide letter no. 707, dated 15.05.2021.

**Water and waste water Requirement Details**

Category	Population/ Area (sqm)/Capacity	Standard (LPCD)	Water Requirement (KLD)	Fresh Water Requirement (KLD)	Recycled Water requirement (KLD)
<b>Domestic</b>					
Residents	20	135	3	2	1
Staff	1550	45	70	50	20
Visitors	2448	15	37	26	11
<b>Total Domestic Water Demand</b>			<b>110</b>	<b>78</b>	<b>32</b>
Landscape	1207Sq.m	3ltr/sqm	4	-	4
Fire Fighting			1	-	1
DG/HVAC cooling	--		45	--	45
<b>Total</b>		-	<b>160</b>	<b>78</b>	<b>82</b>

Category	Total Quantity (KLD)
Domestic water Req.	78
Flushing water Req.	32
Sewage generation (@80% of the fresh + 100% flushing water requirement)	102
Capacity of STP	110
Recovered water from STP (90% of Waste water)	82
6. Flushing	32
7. Landscaping	4
8. Fire Fighting	1
9. DG/HVAC cooling	45

### Solid Waste Requirement

S. No	Description	Occupancy/Area	kg/capita/day	Total Solid Waste Generation (kg/day)	Recyclable (kg/day)	Non Recyclable (kg/day)
1.	Residents	20	0.5	10	3	7
2.	Staff	1550	0.25	388	116	272
3.	Visitors	2448	0.15	367	110	257
4.	Landscape waste	0.3 acres	0.2 kg/acres	1	1	-
5.	STP sludge	102KLD	--	10		10
<b>Total Waste Generated</b>				<b>776</b>	<b>230</b>	<b>546</b>

### ENVIRONMENT MANAGEMENT

#### Green Belt Development

- Combination of local trees and shrubs are planned within the project site.
- Green area will be provided in 1207 m<sup>2</sup> (@10% of plot area) which will enhance the beauty of the site and help combat air and noise pollution.
- The plant species will be selected on the basis of Guidelines for Developing Green Belts, CPCB March 2000.

#### Solid Waste Management

##### During Construction Phase

- Construction yards are proposed for storage of construction material.
- Excavated top soil will be stored in temporary constructed soil bank and will be reused for landscaping of the project.
- Remaining soil will be utilized for refilling/road work/raising of site level at locations.
- There will be "Refuse Containers" at site for the management of domestic waste generated by the construction labourers and these containers will be emptied at least once daily.

- Cement bags, waste paper and packing material (cardboard) will be sold off to recyclers.

#### **During Operation Phase**

- The solid waste will be segregated at source & collected.
- Adequate number of colored bins (green, white & Black) separate for bio-degradable, non-biodegradable and Hazardous waste are proposed to be provided at the strategic location within site.
- Bio-degradable (will be composted through organic waste converter).
- Recyclable wastes will be disposed to govt. or SPCB approved third party vendors.
- Dewatered sludge can be buried underground in a sanitary landfill. It also may be spread on agricultural land in order to make use of its value as a soil conditioner and fertilizer.
- The Hazardous waste generated will be managed as per the Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016.
- Horticultural Waste is composted and used for gardening purposes.

#### **Water Quality Management**

##### **During Construction Phase**

- The site drainage will be planned in such a way that there is no accumulation of water/wastewater within the project premises or in the vicinity of the site.
- Mobile toilets to be provided for construction Laborers.
- Generated waste water will be collected through tankers and dispose to septic tank for treatment.

##### **During Operation Phase**

- STP of capacity i.e.110.0 KLD is proposed for treatment of wastewater.
- Treated waste water would be reused for Horticulture, DG cooling, flushing, fire fighting and in nearby construction site/sewer.
- Use of water efficient plumbing fixtures to conserve water.
- Approx. 78.0KLD of fresh water is required during operational phase of the project.

#### **Air Quality Management**

- Warehouse/stock yard will be provided for storage of construction material
- Covering of stored construction materials with tarpaulin covers which will be resold to authorized construction material handling agency for reuse.
- Covering of trucks carrying construction materials.
- Dust suppression by water sprinkling.
- Adequate maintenance of construction equipment & vehicles.
- Wheel wash facility at the entry/exit of the site to prevent dust emissions.
- Periodical Ambient Air Quality Monitoring.
- PUC Certified vehicles.
- Glow signs Speed Limits to 20 kmph to reduce emissions on site will be displayed at the important junctions.

#### **Energy conservation**

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Solar Panels will be used in Street Lights, Common area, Pumping area (solar panels will be used to save around 10 % of the total power requirement).

During the presentation the following documents were sought :

- i. Solid waste generation and management details to be provided.
- ii. Copy of the ecology and biodiversity study carried out by the EB expert.

The Project Authorities have submitted the above mentioned documents.

The PAs has proposed the remediation plan and natural & community resource augmentation plan before the Committee.

On the basis of above the State Level Expert Appraisal Committee (SEAC), Jharkhand recommended an amount of rupees 198 Lakh as per CPCB guidelines towards remediation plan and natural & community resource augmentation plan to be spent within a period 03 years. The details of summary of Natural resource and Environmental / Ecological Damage assessment with budgetary provision for expenditure under the below mention head for remediation :-

Sr. No.	Major Environment	Details	Cost Rs in Lacs
1	Ecological Environment	Green belt development in consultation with DFO and authorities.	63
2	Water Environment	Beautification and repair of pond in nearby area or any suggestion from local authorities.	25
3	Energy Conservation	Providing Solar Panel in nearby area	40
4	Social Environment	Environmental awareness campaign in nearby area like school and institution	20
5	Air Environment	Providing medical instruments/equipment near by hospital	50
TOTAL COST RS. IN LACS			198


- I. The Committee visited the project site on 20.07.2022 to verify the details submitted by PAs.
- II. Total budgetary provision with respect to remediation plan and natural and community resource augmentation plan is Rs. 198 Lakh.



- III. Therefore, PAs shall be required to submit a bank guarantee of an amount of Rs. 198 Lakh towards remediation plan and natural and community resource augmentation plan with the Jharkhand State Pollution Control Board and evidence of the same submitted to SEIAA, Jharkhand prior to grant of EC.
- IV. The bank guarantee shall be released after successful completion of remediation plan, duly recommended by the SEAC, Regional Office - MoEF&CC, Govt. of India and approval of regulatory authority. Remediation plan shall be completed in 03 years with the consultation of Local / Urban Bodies / State Govt. Deptt.
- V. Approval / permission from CGWA shall be obtained before drawing ground water for the project activities, if applicable. Jharkhand State Pollution Control Board shall not issue Consent to Operate (CTO) until the PAs obtains such permission.
- VI. PAs shall take necessary other clearances / permissions under various act and rules if any, from the respective authorities / departments.
- VII. STP of adequate capacity shall be established within the project premises.
- VIII. Energy conservation measures adhering to part of ECBC norms shall be complied with.
- IX. The penalty of rupees 21,83,500 being 0.5% of the project cost incurred (Rs. 43.67 Crores) shall be submitted to Jharkhand State Pollution Control Board in the form of demand draft and evidence of the same to be submitted to SEIAA, Jharkhand prior to grant of EC.
- X. Action will be taken for the violation by the Jharkhand State Pollution Control Board under the provision of section 19 the Environment (Protection) Act, 1986.

**Based on the presentation made and information provided, the Committee decided that the proposal for R.Ali's Grand Mall (Commercial Building comprising of shopping Mall and Residential Area) " of M/s APJ Express, Village : Hindpiri, Tehsil : Hindpiri, Distt. : Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II alongwith the following specific conditions :**

- I. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.
- II. All raw material to be stored only under covered shed.
- III. PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.
- IV. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load. It is to be achieved by solar panels etc meeting ECBC norms.
- V. Trees should be developed & maintained not less than 15% of project area.
- VI. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.
- VII. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.

  
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- VIII. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.
- IX. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- X. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.
- XI. Sufficient number of EV fast charging point to be installed.

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5. Shree Aditya Heritage of M/s Shree Siddhi Developers, Village : Sonari, Thana : Sonari, Thana no. : 1156, Tehsil : Jamshedpur, Distt. : East Singhbhum, Jharkhand.

(Proposal No. : SIA/JH/MIS/286585/2022)

Project Category: 8(a) Category B2 – Application for Environment Clearance

EC Application for: Residential buildings: Total built-up area is 21948.09 sq m.

Name of the consultant: P & M SOLUTION, Noida

PROJECT and LOCATION Details:

Parameters	Description
Plot Area	4804.98 m <sup>2</sup> (approx. 1.186 acre)
Project Cost	INR 32.9 Crores
Built-up Area	21948.09 m <sup>2</sup>
Green Area	720.74 sq m (15 % of Plot area)
Population	1000
Water Requirement	92KLD
Fresh Water Requirement	58 KLD
Wastewater Generation	72 KLD
STP Capacity	100KLD
Total Municipal Waste	534 kg/day
Power Requirement	1500 KVA (Jharkhand State Electricity board)
DG Sets	1 no. of DG set of Total 140 kVA

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RWH Pits	06 no.
Parking	319 No., 2,318 sq.m
Connecting road	Project site is well connected with road adjacent.
National Highway	NH-118 (0.3 km N)
Nearest Railway Station	Tatanagar Railway Station – 7.73 Km SE
Airport	Birsa Munda Airport, Ranchi – 101 km NW
Nearest Hospitals	Guru nanak hospital (4.75Km , SE) Apex Hospital (5.08 km, SE)
Nearest Water Bodies	Subarnarekha River – 0.6 km N Kharkhai River – 0.7 Km W

#### CO-ORDINATES

1	Latitude	22°49'48.17"N
2	Longitude	86° 9'57.39"E

#### LAND DETAILS

Khata no.	Plot no.
113 (New)	507, 632 (P) (New)
04 (Old)	21 (Old)

#### STATUTORY CLEARANCES

1	DFO Forest Distance	DFO, Jamshedpur Forest division vide letter no. 929, dated 25.04.2022 certified that the distance of reserved / protected forest is more than 250 m from project site.
2	DFO wildlife	: DFO, Dalma Elephant Project vide letter no. 579, dated 05.05.2022 certified that the proposed project site is outside Dalma Wildlife Sanctuary of Eco Sensitive Zone. The additional comments given by the DFO, Dalma Elephant Project is not appropriate.
3	CO certificate	: The CO, Jamshedpur vide letter no. 1922 dated 22.09.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyan & Register II.
4	AAI	: Airport Authority of India issued NOC vide NOC ID JAMS/EAST /B/010822/647520 dated 21.01.2022.

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5	Fire Department	:	A fire advisory has been issued by Fire Department, Jharkhad, Ranchi vide memo no. 4241/Tech./2021 dated 27.12.2021.
6	Building Plan	:	Conceptual Plan submitted.

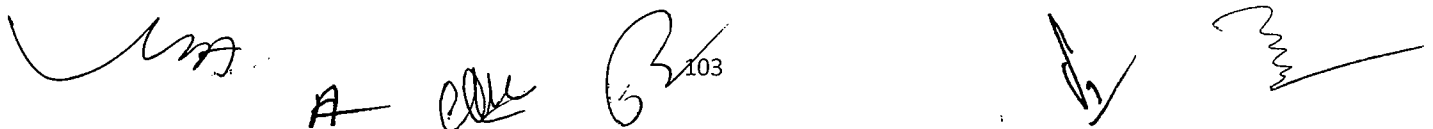
### Water and waste water Requirement Details

Category	Population/ Area (sq m)/ Capacity	Standard (LPCD)	Water Requirement (KLD)	Fresh Water Requirement (KLD)	Recycled Water requirement (KLD)
<b>Domestic</b>					
Residents	810	100	81	57	24
Staff	40	45	2	0.6	1.4
Visitors	81	15	1	0.7	0.3
<b>Total Domestic Water Demand</b>			<b>84</b>	<b>58</b>	<b>26</b>
Landscape	781.84 sq m	6 l/day	5	-	5
Fire Fighting			1	-	1
DG cooling	140 KVA	0.9 l/kVA/hr	2	-	2
<b>Total</b>		-	<b>92</b>	<b>58</b>	<b>34</b>

Category	Total Quantity (KLD)
Domestic water Req.	58
Flushing water Req.	26
Sewage generation (@80% of the Domestic + 100% flushing water requirement)	72
<b>Capacity of STP</b>	<b>100</b>
Recovered water from STP (90% of Waste water)	65
1. Flushing	26
2. Landscaping	5
3. Fire Fighting	1
4. DG cooling	2
5. Road washing/sewer	31

### Solid Waste Requirement

S. No	Description	Total Solid Waste Generation (kg/day)	Recyclable (kg/day)	Non-Recyclable (kg/day)
1.	Residents	500	400	100
2.	Staff	5	4	1
3.	Visitors	15	12	3



4.	Landscape waste	1.5	1.5	-
<b>Total Domestic waste</b>		<b>521.5</b>	<b>417.5</b>	<b>104</b>
5.	STP sludge	12	10	2
<b>Total Waste Generated</b>		<b>534</b>	<b>428</b>	<b>106</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development

- Combination of local trees and shrubs are planned within the project site.
- Total green area provided at the site is 720.74 sq m (@ 15 % of plot area) which will enhance the beauty of the site and help combat air and noise pollution.
- The plant species will be selected on the basis of Guidelines for Developing Green Belts, CPCB March 2000.

### Solid Waste Management

#### During Construction Phase

- Construction yards are proposed for storage of construction material.
- Excavated top soil will be stored in temporary constructed soil bank and will be reused for landscaping of the project.
- Remaining soil will be utilized for refilling/road work/raising of site level at locations.
- There will be "Refuse Containers" at site for the management of domestic waste generated by the construction labourers and these containers will be emptied at least once daily.
- Cement bags, waste paper and packing material (cardboard) will be sold off to recyclers.

#### During Operation Phase

- The solid waste will be segregated at source & collected.
- Adequate number of colored bins (green, white & Black) separate for bio-degradable, non-biodegradable and Hazardous waste are proposed to be provided at the strategic location within site.
- Bio-degradable (will be composted through organic waste converter).
- Recyclable wastes will be disposed to govt. or SPCB approved third party vendors.
- Dewatered sludge can be buried underground in a sanitary landfill. It also may be spread on agricultural land in order to make use of its value as a soil conditioner and fertilizer.
- The Hazardous waste generated will be managed as per the Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016.
- Horticultural Waste is composted and used for gardening purposes.

### Water Quality Management

#### During Construction Phase

- The site drainage will be planned in such a way that there is no accumulation of water/wastewater within the project premises or in the vicinity of the site.
- Mobile toilets to be provided for construction Laborers.
- Generated waste water will be collected through tankers and dispose to septic tank for treatment.

### During Operation Phase

- STP of capacity i.e. 100 KLD is proposed for treatment of wastewater.
  - Treated waste water would be reused for Horticulture, flushing, fire fighting, Car Washing, Dust Suppression and Sweeping
  - Use of water efficient plumbing fixtures to conserve water.
- Approx. 58KLD of fresh water is required during operational phase of the project.

### Air Quality Management

- Warehouse/stock yard will be provided for storage of construction material
- Covering of stored construction materials with tarpaulin covers which will be resold to authorized construction material handling agency for reuse.
- Covering of trucks carrying construction materials.
- Dust suppression by water sprinkling.
- Adequate maintenance of construction equipment & vehicles.
- Wheel wash facility at the entry/exit of the site to prevent dust emissions.
- Periodical Ambient Air Quality Monitoring.
- PUC Certified vehicles.
- Glow signs Speed Limits to 20 kmph to reduce emissions on site will be displayed at the important junctions.

### Energy conservation

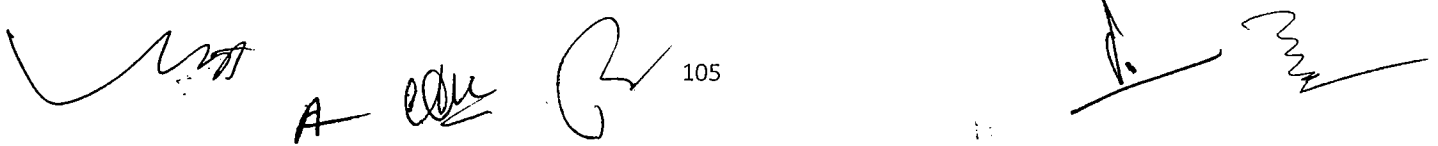
- Solar Panels and LED lights will be used in Street Lights, Common area, Pumping area (solar panels will be used to save around 5.55 % of the total power requirement).

### Undertaking

1. An affidavit stating that no construction work has been commenced at the proposed site.
2. An undertaking that 122 m<sup>3</sup>/day recycles waste water generated at Proposed residential project "Shree Aditya Heritage" over Plot No. 507,632 (P), KHATA NO. 113 of village- Sonari, TEHSIL-Jamshedpur, District East Singhbhum, State-Jharkhand shall be met from Sri Ritesh Kumar Shuklar of M/s. Shree Siddhi Developers
3. An undertaking that 1500 KVA Power requirement in Proposed residential project "Shree Aditya Heritage" over Plot No. 507,632 (P), KHATA NO. 113 of village- Sonari, Tehsil- Jamshedpur, District East Singhbhum, State-Jharkhand.

### During the presentation the following documents were sought :

- i. STP technology and its outlet value to be provided.
- ii. Detailed water balance to be provided.
- iii. Location of waste collection center to be provided on the layout plan.

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- iv. Details of plantation including name & number of species to be provided.
- v. A clear google map with coordinates within 500 m to be provided .
- vi. Details of CER budget with breakup activities to be provided.

The Project Authorities have submitted the above mentioned documents.

Based on the presentation made and information provided, the Committee decided that the proposal for Shree Aditya Heritage of M/s Shree Siddhi Developers, Village : Sonari, Thana : Sonari, Thana no. : 1156, Tehsil : Jamshedpur, Distt. : East Singhbhum, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II alongwith the following specific conditions :

- I. The Project Authorities are required to submit a revised a corrected DFO Wildlife certificate prior to issuance of EC.
- II. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.
- III. All raw material to be stored only under covered shed.
- IV. PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.
- V. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load. It is to be achieved by solar panels etc meeting ECBC norms.
- VI. Trees should be developed & maintained not less than 15% of project area.
- VII. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.
- VIII. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- IX. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.
- X. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- XI. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.
- XII. Sufficient number of EV fast charging point to be installed.

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6. Residential Building Project “ Rose Avenue” of M/s Saraswati Consultancy and Construction, Village : Pundag, Thana No. : 228, Tehsil : Nagri, Distt. : Ranchi, Jharkhand.

(Proposal No. : SIA/JH/INFRA2/403440/2022)

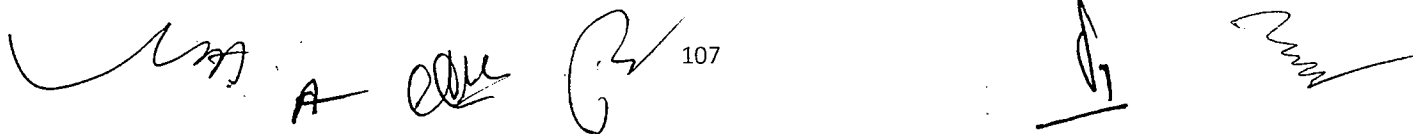
Project Category: 8(a) Category B2 – Application for Environment Clearance

EC Application for: Proposed Residential project: Total built-up area is 28,131.24 sq m.

Name of the consultant: P & M SOLUTION, Noida

Project and Location Details :

Parameters	Description
Plot Area	7526.39 sq. m. (approx. 1.85 acre)
Project Cost	INR 44 Crores
Built-up Area (@ 2.99 F.A.R)	28,131.24 sq. m.
Green Area (@ 15 % of plot area)	1128.95 sq m
Population	968
Water Requirement	103KLD
Fresh Water Requirement	64 KLD
Wastewater Generation	78 KLD
STP Capacity	100 KLD
Total Municipal Waste	470 kg/day
Power Requirement	1200 KVA (Jharkhand State Electricity board)
DG Sets	DG set of Total 500 KVA
RWH Pits	02 no.
Parking Area	176 ECS
Connecting road	Itki Road (2.56 km,W) Pundag Road (Abuts Site) Lathal More Road (1.00 km, N)
National Highway	NH 39 (2.89 km , SW)
Nearest Railway Station	Argora Railway Station (4.63 km, E)
Airport	Birsa Munda Airport (6.63 km, SE)
Nearest Hospitals	Harmu Hospital and Research Centre (3.23 km, NE)
Nearest Water Bodies	Dhurwa Dam (5.33 km, S) Ranchi Lake (5.2 km, NE)

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	Kanke Dam (6.4 km, NNE) Subernrekha River (5.12 km, SE) Argora River (2.60 km, E)
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**CO-ORDINATES**

S.No	Latitude	Longitude
1	23°20'52.64" N	85°16'5.09" E
2	23°20'51.44"N	85°16'8.93"E
3	23°20'51.16"N	85°16'7.44"E
4	23°20'50.78"N	85°16'7.31"E
5	23°20'50.66"N	85°16'6.10"E
6	23°20'51.57"N	85°16'6.10"E
7	23°20'52.30"N	85°16'5.73"E
8	23°20'52.31"N	85°16'5.01"E

**LAND DETAILS :**

Khata No	Plot No
83	2663
140	2665, 2734

**STATUTORY CLEARANCES :**

1	DFO Forest Distance	:	DFO, Ranchi Forest division vide letter no. 4211, dated 07.10.2022 certified that the distance of reserved/protected forest is more than 250 m from project site.
2	DFO wildlife	:	DFO, Wildlife Ranchi vide memo no. 915, dated 11.10.2022 certified that proposed project is out of Eco Sensitive Zone of Palkot Wildlife Sanctuary.
3	CO certificate	:	The CO, Nagri, Ranchi vide letter no. 1323(ii), dated 20.10.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in Khatiyani & Register II.
4	AAI	:	Airport authority of India issued NOC vide NOC ID RANC/EAST /B/080822/688722, dated 19.09.2022
5	Fire Department	:	An undertaking has been submitted stated that Fire NOC will be obtained in due course of time.
6	Building Plan	:	Conceptual plan submitted.

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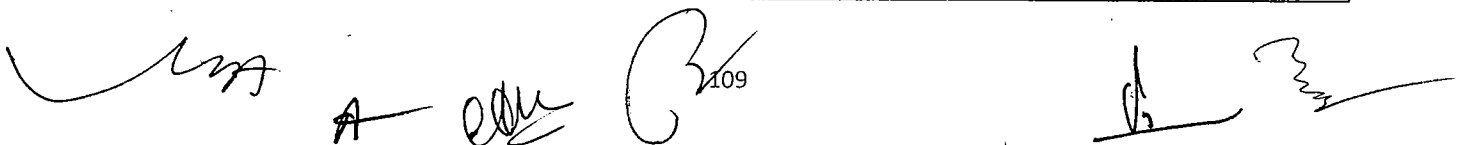
## Water and waste water Requirement Details

Category	Population/ Area (sq m)/ Capacity	Standard (LPCD)	Water Requirement (KLD)	Fresh Water Requirement (KLD)	Recycled Water requirement (KLD)
<b>Domestic</b>					
Residents	880	100	88	62	26
Staff	44	45	2	1.5	0.5
Visitors	88	15	1	0.5	0.5
<b>Total Domestic Water Demand</b>			<b>91</b>	<b>64</b>	<b>27</b>
Landscape	1128.95 sq m	6 l/day	7	0	7
Fire Fighting			1	-	1
DG cooling	500 KVA	0.9 l/kVA/hr	4		4
<b>Total</b>		-	<b>103</b>	<b>64</b>	<b>39</b>

Category	Total Quantity (KLD)
Domestic water Req.	64
Flushing water Req.	27
Sewage generation (@80% of the Domestic + 100% flushing water requirement)	78
<b>Capacity of STP</b>	<b>100</b>
Recovered water from STP (90% of Waste water)	70
1. Flushing	27
2. Landscaping	7
3. Fire Fighting	1
4. DG cooling	4
5. Road washing/sewer	31

### Solid Waste Requirement

S. No	Description	Occupancy/Area	kg/capita/day	Total Solid Waste Generation (kg/day)	Non- Recyclable (Kg/day)	Recyclable (kg/day)
1.	Residents	880	0.5	440	264	176
2.	Staff	44	0.25	11	7	4
3.	Visitors	88	0.15	7	4	3
4.	Landscape	0.19	0.2	1	0	1



	waste					
5.	STP sludge	113 KLD sewage	--	11	0	11
<b>Total Waste Generated</b>				470	275	195

## ENVIRONMENT MANAGEMENT

### Green Belt Development

- Combination of local trees and shrubs are planned within the project site.
- Total green area provided at the site is Green belt (@15% of plot area) 1128.95 sq m which will enhance the beauty of the site and help combat air and noise pollution.
- The plant species will be selected on the basis of Guidelines for Developing Green Belts, CPCB March 2000.

### Solid Waste Management

#### During Construction Phase

- Construction yards are proposed for storage of construction material.
- Excavated top soil will be stored in temporary constructed soil bank and will be reused for landscaping of the project.
- Remaining soil will be utilized for refilling/road work/raising of site level at locations.
- There will be "Refuse Containers" at site for the management of domestic waste generated by the construction labourers and these containers will be emptied at least once daily.
- Cement bags, waste paper and packing material (cardboard) will be sold off to recyclers.

#### During Operation Phase

- The solid waste will be segregated at source & collected.
- Adequate number of colored bins (green, white & Black) separate for bio-degradable, non-biodegradable and Hazardous waste are proposed to be provided at the strategic location within site.
- Bio-degradable (will be composted through organic waste converter).
- Recyclable wastes will be disposed to govt. or SPCB approved third party vendors.
- Dewatered sludge can be buried underground in a sanitary landfill. It also may be spread on agricultural land in order to make use of its value as a soil conditioner and fertilizer.
- The Hazardous waste generated will be managed as per the Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016.
- Horticultural Waste is composted and used for gardening purposes.

### Water Quality Management

#### During Construction Phase

- The site drainage will be planned in such a way that there is no accumulation of water/wastewater within the project premises or in the vicinity of the site.
- Mobile toilets to be provided for construction Laborers.
- Generated waste water will be collected through tankers and dispose to septic tank for treatment.

### During Operation Phase

- STP of capacity i.e. 100 KLD is proposed for treatment of wastewater.
- Treated waste water would be reused for Horticulture, DG/HVAC cooling, flushing, fire fighting.
- Use of water efficient plumbing fixtures to conserve water.
- Approx. 64 KLD of fresh water is required during operational phase of the project.

### Air Quality Management

- Warehouse/stock yard will be provided for storage of construction material
- Covering of stored construction materials with tarpaulin covers which will be resold to authorized construction material handling agency for reuse.
- Covering of trucks carrying construction materials.
- Dust suppression by water sprinkling.
- Adequate maintenance of construction equipment & vehicles.
- Wheel wash facility at the entry/exit of the site to prevent dust emissions.
- Periodical Ambient Air Quality Monitoring.
- PUC Certified vehicles.
- Glow signs Speed Limits to 20 kmph to reduce emissions on site will be displayed at the important junctions.

### Energy conservation

- Energy will be conserved via solar power & LED of at least 5 % of the total power requirement.

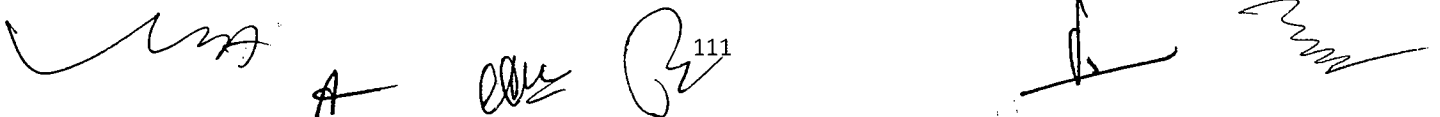
### Undertaking

1. An affidavit stating that no construction work.
2. An undertaking that 90 m<sup>3</sup>/day recycles waste water generated at Proposed Residential Building Project "Rose Avenue" located at Plot No. 2663, 2665 & 2734, Khata No 83 & 140, Thana No. 228, Thana-Pundag, District Ranchi, State-Jharkhand.
3. An undertaking that 1200 KVA Power requirement in Proposed Residential Building Project "Rose Avenue" located at Plot No. 2663, 2665 & 2734, Khata No 83 & 140, Thana No. 228, Thana-Pundag, District Ranchi, State-Jharkhand.

### During the presentation the following documents were sought :

- i. STP technology and its outlet value to be provided.
- ii. Detailed water balance to be provided.
- iii. Location of waste collection center to be provided on the layout plan.
- iv. Details of plantation including name & number of species to be provided.
- v. A clear google map with coordinates within 500 m to be provided .
- vi. Details of CER budget with breakup activities to be provided.

The Project Authorities have submitted the above mentioned documents.



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Based on the presentation made and information provided, the Committee decided that the proposal for Residential Building Project “ Rose Avenue” of M/s Saraswati Consultancy and Construction, Village : Pundag, Thana No. : 228, Tehsil : Nagri, Distt. : Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – II alongwith the following specific conditions :

- I. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.
- II. All raw material to be stored only under covered shed.
- III. PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.
- IV. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load. It is to be achieved by solar panels etc meeting ECBC norms.
- V. Trees should be developed & maintained not less than 15% of project area.
- VI. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.
- VII. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- VIII. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.
- IX. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- X. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.
- XI. Sufficient number of EV fast charging points to be installed.

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7. Gurgain Stone Mine of M/s Shri Jai Balaji Construction, Village : Gurgain, Thana : Ormanjhi, Thana no. : 69, Distt. : Ranchi, Jharkhand (1.74 Ha).

(Proposal No. : SIA/JH/MIN /400094/2022)

Project Category: B2 – Application for Environment Clearance

EC Application for: Stone: 11,888 Cu.M. / year I.e 33,287 Tonnes / year



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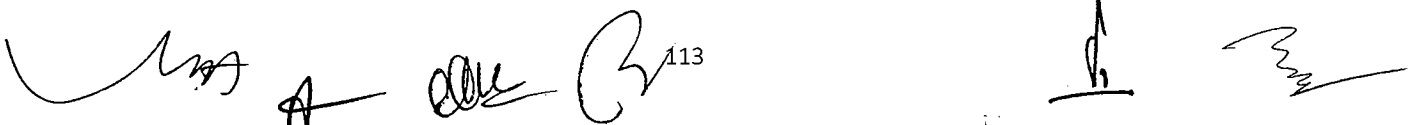


Name of the consultant: P and M Solution, Noida

This is a new project which has been taken for appraisal on 04.11.2022.

**Project and Location Details :**

Sl	Parameter	Details
1	Project Name	: Gurgain Stone Mine
2	Applicant:	: M/s Shri Jai Balaji Construction Proprietor: Sri Santosh Kumar Gupta At Kali Babu Street, Upper Bazar, Ranchi, P.S. – Kotwali, District – Ranchi, State – Jharkhand, 834001
3	Lease Address	: In Mouza - Gurgain, Thana - Ormanjhi, Thana No. - 69, District – Ranchi, Jharkhand.
4	Applied Area	: Ha: 1.74 Hectares      Acres: 4.29 Acres
5	Type of Land	: Non Forest – Raiyati Land
6	Project Cost	: 56 Lakhs
7	EMP Budget	: Capital: 18.64 Lakhs      Recurring: 5.51 Lakh / year
8	CSR / CER Budget	: Rs. 1.12 Lakhs
9	New or Expansion	: New
10	Mineable Reserves	: Cu.M.: 1,18,882 Cu. M.      Tonnes: 3,32,870 Tonnes
11	Mine Life	: 10 years
12	Man power	: 32
13	Water Requirement	: 18.05 KLD Dust Suppression: 11.5 KLD, Drinking: 1.28 KLD, , Plantation: 5.27 KLD
14	Water Source	: From nearby authorized sources.
15	DG Set / power	: 60 KVA
16	Crusher	: No
17	Nearest Water Body	: Getalsud Dam is situated approx. 2.82 Km aerial distance away towards South direction.
18	Nearest Habitation	: Gurgain village is approx. 0.78 Km aerial distance away in North East direction.
19	Nearest Rail Station	: Sidhwar Railway Station is approx. 10.04 Km aerial distance away in



			North West direction. Mesra Railway Station is approx. 14.05 Km aerial distance away in South-West direction.
20	Nearest Air Port	:	Birsa Munda Airport, Ranchi, Jharkhand is approx. 28.92 Km aerial distance away in South-West direction.
21	Nearest Forest	:	More than 250m away from the proposed project.
22	Road & Highways	:	Approach Road: Gurgain-Kurum-Guru is approx. 0.81 Km away in north direction. Highway: NH-320 is approx. 1.03 Km away in South east direction.

#### CO-ORDINATES

1	Latitude	:	From N23°30'11.76"	To N23°30'17.91"
2	Longitude	:	From E85°31'26.84"	To E85°31'32.60"

#### LAND DETAILS :

Khata No.	Plot No.
36	677
41	702 (P)
31	757

#### STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Ranchi vide letter no. 604/M, dated 21.07.2022.
2	CO	:	The CO, Ormanjhi (Ranchi) vide letter no. 251(ii), dated 15.02.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyan & Register II.
3	DMO	:	DMO, Ranchi vide memo no. 621/M, dated 29.07.2022 certified that 01 mining area (3.28 acre) exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Ranchi vide letter no. 96, dated 11.02.2022 certified that the proposed project site is outside Eco Sensitive Zone.
5	DFO Forest Distance	:	DFO, Ranchi Division vide letter no. 685, dated 26.02.2022 certified that the distance of reserved / protected forest is more than 250 m

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			from proposed project site.
6	DSR	:	The DC – cum – District Magistrate, Ranchi vide letter no. 672/M, dated 18.08.2022 has informed that this project is part of District Survey Report (DSR) of Ranchi district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Ormanjhi (Ranchi) vide Letter no. 153 (ii), dated 08.02.2022 informed that Gram Sabha conducted on 28.01.2022.
8	Mine Plan Approval	:	District Mining Office, Ranchi vide Memo No. 627/M, dated 30.07.2022

### Working Details

1	Mining Method	:	Opencast Mechanized Mining.
2	Quarry Area	:	5 years – 1.27 Ha
3	Waste Generation	:	5 years– 240 Cu.M (Gritty Soil)
4	Stripping Ratio	:	1 : 0.004
5	Working Days	:	300 Days
6	Benches: size & No	:	Size: 6m x 6m, No. - 5
7	Elevation of Mine	:	Highest RL 610m AMSL, Lowest RL 601m AMSL
8	Ground Level Elevation	:	606m AMSL
9	Ultimate Working Depth	:	580m AMSL
10	Water Table	:	558m AMSL
11	Topography of Mine	:	There are two old quarries present within the area.
12	Explosive Requirement	:	10.4 Tons/year
13	Diesel/Fuel requirement	:	42 KL/year ( 140 Litres/day)

### Production Details

Year	Production of stone (Cum)	Production of stone (Tonne)	Waste (gritty soil) Generation (CuM)	Bench RL in Meters
1st Year	11,888	33,287	Nil	604m – 598m
2nd Year	11,887	33,285	Nil	604m – 598m
3rd Year	11,888	33,287	240	610m – 598m
4th Year	11,887	33,285	Nil	604m – 598m
5th	11,888	33,287	Nil	604m – 592m

Year				
<b>Total</b>	<b>59,438</b>	<b>1,66,431</b>	<b>240</b>	

#### Land Use

SL	Pattern	Existing Land Use (Ha)	Proposed Current Plan Period (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Land Usage at Conceptual Stage
1	Mining Area (Quarry)	1.23	1.27	1.27	0.93	Water Body
					0.34	Dead bench Plantation
2	Green Belt Within Safety Barrier	Nil	0.47	0.47	0.47	Plantation
3	Road	0.01	Nil	Nil	Nil	-
4	Unutilized	0.50	Nil	Nil	Nil	-
	<b>TOTAL</b>	<b>1.74</b>	<b>1.74</b>	<b>1.74</b>	<b>1.74</b>	

#### ENVIRONMENT MANAGEMENT

##### Green Belt Development

SL	Location		Area/Length	No of Trees
1	Safety Zone	:	0.47 Ha	1175 trees @ 2500 trees per Ha
2	Dead Bench	:	0.34 Ha	850 trees @ 2500 trees per Ha
3	Haul /Approach Road	:	0.162 Ha	542 trees on both sides – 3m distance
			i.e. Length 810 width 2m	

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

##### Solid Waste Management

- Waste (gritty soil) Generation will be 240 Cu.M. during the life of Mine.  
There are two old quarries present within the area. During quarry development in 3rd year little amount of gritty soil will be removed and this soil will be used in haul road dressing & plantation.

##### Water Quality Management

- Mining is planned to above the ground water table. In case any intersection is likely, mining activities will be stopped 2m above the Ground Water Table.




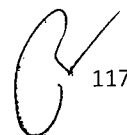


- The rain water during rainy season will be collected in a pit and shall be use for dust suppression and plantation. Excess water, if any shall be discharged in natural stream after settling of suspended particles in the pit. Pump having required capacity will be installed to lift accumulated rain water from working pit and pumped to the settling tank.
- Garland drain shall be made around the Waste dump and the rain water shall be collected in garland drain and allowed to settle in a small pit for settling suspended particles before allowing discharge to natural drainage system. Check Pits and Retainer walls shall be constructed to prevent water flowing into the applied area from outside or from inside the lease area to the outside
- For domestic waste water Septic Tank with Soak Pit shall be provided, discharge from Soak Pit, if any shall be used for plantation.
- It shall be ensured that quality of drinking water for the worker is hygienic and good sanitation system shall be made available.

### **Air Quality Management**

- Dust extractor or wet drilling shall be followed to control dust at source of emission during drilling.
- Sharp drill bits will be used for drilling and regrinding will be done periodically to reduce the dust generation.
- Controlled blasting to reduce dust emission and reduction in NOx emission
- All machineries and transport vehicles shall be properly maintained and pollution check will be done once in a year to keep the emissions from machineries and vehicle under control. Records for same to be maintained.
- Water sprinkling will be done on haul road to control emission of dust while transporting minerals and waste. Provision for water spray by tankers on 'kaccha' road shall be done.
- Water sprinkling at loading area shall be done
- Use of personal protective equipment like dust mask etc shall be put in practice
- Ambient air pollution monitoring shall be carried out every six months

### **Undertaking submitted affirming:**

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The water required for the mining activities shall be supplied by the tanker from nearby authorized sources.
- c. The letter issued in respect of District Survey Report (DSR), is issued by the competent authority. I will abide by any directives issued by any court of law in future.
- d. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- e. The Boundary Pillars of the proposed mine applied area will be maintained properly.
- f. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.

- g. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- h. Sufficient water spray using water tankers will be done for effective dust suppression within the mine applied area and on haul roads.
- i. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- j. If any tree felling than necessary permission shall be taken from the competent authority.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Gurgain Stone Mine of M/s Shri Jai Balaji Construction, Village : Gurgain, Thana : Ormanjhi, Thana no. : 69, Distt. : Ranchi, Jharkhand (1.74 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III.

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8. Guhiapal Stone Block of M/s Singh Transport Services (Prop. : Shri Dharendra Kumar Singh), Village : Guhiapal, Thana No. : 981, Distt. : East Singhbhum, Jharkhand (2.91 Ha).

(Proposal No. : SIA/JH/MIN/403095/2022)

Project Category: B2 – Application for Environment Clearance

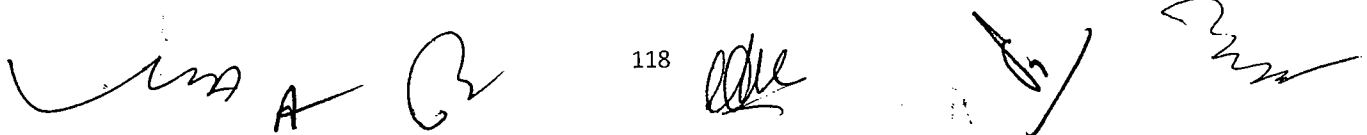

EC Application for: Proposed Capacity- 18663.32 cu.m/annum or 50390.96 TPA

Name of the consultant: P & M Solution, Noida, UP.

This is a new project which has been taken for appraisal on 04.11.2022.

**Project and Location Details :**

S. No.	Parameter	Details	
1	Project Name	Guhiapal Stone Block	
2	Lessee:	M/S Singh Transport Services Sh. Dharendra Kumar Singh 104A, Raj Labandh, Baharagora- 832101 District- East Singhbhum, Jharkhand	
3	Lease Address	Village – Guhiapal, Thana- Ghatsila, Thana No. 981, District – East Singhbhum, State- Jharkhand	
4	Lease Area	2.91 ha	Acres- 7.19 Acres
5	Type of Land	Non Forest – Raiyati Land	
6	Project Cost	Rs. 30 Lakhs	
7	EMP Budget	Capital: 5.675 Lakhs	Recurring: 3.27 Lakh / year

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8	CSR / CER Budget	:	Rs. 0.60 Lakhs
9	New or Expansion	:	New
10	Mineable Reserves	:	Cu.m.: 141059.68 cum Tonnes: 380861.14 tons
11	Mine Life	:	7.55 years
12	Man power	:	22
13	Water Requirement	:	8.80 KLD (Drinking: 0.22 KLD, Dust Suppression: 3.79 KLD, Plantation: 4.80 KLD)
14	Water Source	:	From Nearby villages by tankers
15	DG Set / power	:	500 KVA
16	Crusher	:	No crusher
17	Nearest Water Body	:	Subarnarekha River, 0.18 km, West direction
18	Nearest Habitation	:	Guhiapal, at approx. 0.75 km
19	Nearest Rail Station	:	Kokpara Railway station, approx. 20 km towards N direction.
20	Nearest Air Port	:	Birsa Munda Airport, approx. 180 km towards NW direction.
21	Nearest Forest	:	Open Mixed Jungle, at approx. 5.98 km towards NW direction of mine site. There are various patches of Dense Mixed Jungle in NE direction at the distance of 5.29, 6.02 & 7.41 km.
22	Road & Highways	:	NH- 18, Approx. 4.0 km, East direction

#### CO-ORDINATES

1	Latitude	From 22°17'28.80"N	To 22°17'39.15"N
2	Longitude	From 86°39'46.33"E	To 86°39'57.46"E

#### LAND DETAILS :

Khata No.	Plot No.
333	1372(P)

#### STATUTORY CLEARANCES :






1	LOI/Lease docs	:	The LOI has been issued by Director of Mines, Deptt. of Mines & Geology, Govt. of Jharkhand vide letter no. Kha.Ni(Nilami)-63/ 2022 /1544M/Ranchi , dated 21.07.2022.
2	CO	:	The CO, Baharagora vide letter no. 618, dated 29.08.2022 has mentioned the plot no. of the project is not recorded as "Jangle

			Jhari" in R.S. Khatiyān & Register II.
3	DMO	:	DMO, East Singhbhum, Jamshedpur vide letter no. 768/khanan, dated 14.09.2022 certified that no other lease area exists within 500 m radius from proposed project.
4	DFO Dalma Elephant Project	:	DFO, Dalma Elephant Project vide letter no. 1313, dated 10.09.2022 certified that the proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Jamshedpur Forest Division vide letter no. 2109, dated 08.09.2022 certified that the distance of reserved / protected forest is more than 250 m from the project site.
6	DSR	:	The project is already mentioned in page no. 33 of District Survey Report (DSR) of District East Singhbhum.
7	Gram Sabha	:	BDO, Baharagoda vide Letter no. 931, dated 07.09.2022 informed that Gram Sabha conducted on 07.09.2022.
8	Mine Plan Approval	:	Mine plan approved by Additional Director, Geology, Hazaribag vide Letter no. G/2022-23-215, dated 30.08.2022.

### Working Details

1	Mining Method	:	Opencast other than fully Mechanized (OTFM) Mining method
2	Quarry Area	:	5 years–1.236ha      Life of Mine – 2.572 ha
3	Waste Generation	:	5 years– 5144.76 cum or 13890.852 tons
4	Stripping Ratio	:	1: 0.05
5	Working Days	:	300
6	Bench: size & No	:	6m to 6m
7	Elevation of Mine	:	63 AMSL to 71 AMSL
8	Ground Level Elevation	:	63 AMSL
9	Ultimate Working Depth	:	42 AMSL (21mbgl )
10	Water Table	:	35 AMSI (28mbgl)
11	Topography of Mine	:	Area represents a small hillock
12	Explosive Requirement	:	8kg/day
13	Diesel/Fuel requirement	:	90 litre/day

### Production Details

Year	Production of stone (cum)	Production of stone (tons)	Waste Generation (cum)	Bench RL in Meters
1 <sup>st</sup>	21204.00	50359.50	1060.20	60mRL - 66mRL
2 <sup>nd</sup>	21184.00	50312.00	1059.20	54mRL - 60mRL
3 <sup>rd</sup>	21216.00	50388.00	1060.80	54mRL - 60mRL
4 <sup>th</sup>	19645.60	50390.96	982.28	48mRL - 54mRL
5 <sup>th</sup>	19645.60	50390.96	982.28	48mRL - 54mRL
<b>Total</b>	<b>102895.20</b>	<b>251841.424</b>	<b>5144.76</b>	

### Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Excavation	0.914	1.236	2.572 (1.787 ha area shall be left as water reservoir for Rainwater Harvesting)
Waste Dump	0.157	0.157	Nil
Road	0.133	0.133	Within Safety Zone
Infrastructure	Nil	Nil	Nil
Safety Zone	Nil	0.338 (Within Safety Zone)	0.338 (Within Safety Zone)
<b>Total</b>	<b>1.204</b>	<b>1.864</b>	<b>2.910</b>
Balanced Area	1.706	1.046	-
<b>Total Applied Area</b>	<b>2.91</b>	<b>2.91</b>	<b>2.91</b>

### 1. ENVIRONMENT MANAGEMENT

#### 2. Green Belt Development

S. No.	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.338 ha	850
2	Along Approach Road	:	0.350 km	700

About 850 plants will be distributed in village areas like, School premises, Aangawadi, Panchayat Bhavan and other places.

Therefore, About 2400 no. of plant of different species will be planted in five years.

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

#### **Solid Waste Management**

- Waste Generation will be 5144.76 cum or 13890.852 tons during the plan period. After plan period the proposed waste will be used for maintenance of Haul Road.

#### **Water Quality Management**

- Mining is planned to above the ground water table. In case any intersection is likely, mining activities will be stopped 2m above the Ground Water Table.
- The rain water during rainy season will be collected in a pit and shall be use for dust suppression and plantation. Excess water, if any shall be discharged in natural stream after settling of suspended particles in the pit. Pump having required capacity will be installed to lift accumulated rain water from working pit and pumped to the settling tank.
- Garland drain shall be made around the Waste dump and the rain water shall be collected in garland drain and allowed to settle in a small pit for settling suspended particles before allowing discharge to natural drainage system. Check Pits and Retainer walls shall be constructed to prevent water flowing into the lease area from outside or from inside the lease area to the outside
- For domestic waste water Septic Tank with Soak Pit shall be provided, discharge from Soak Pit, if any shall be used for plantation.
- It shall be ensured that quality of drinking water for the worker is hygienic and good sanitation system shall be made available.

#### **Air Quality Management**

- Dust extractor or wet drilling shall be followed to control dust at source of emission during drilling.
- Sharp drill bits will be used for drilling and regrinding will be done periodically to reduce the dust generation.
- Controlled blasting to reduce dust emission and reduction in NOx emission
- All machineries and transport vehicles shall be properly maintained and pollution check will be done once in a year to keep the emissions from machineries and vehicle under control. Records for same to be maintained.
- Water sprinkling will be done on haul road to control emission of dust while transporting minerals and waste. Provision for water spray by tankers on 'kaccha road shall be done.



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- Water sprinkling at loading area shall be done
- Use of personal protective equipment like dust mask e.t.c shall be put in practice
- Ambient air pollution monitoring shall be carried out every six months

**Undertaking submitted affirming:**

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Guhiapal Stone Block of M/s Singh Transport Services (Prop. : Shri Dharendra Kumar Singh), Village : Guhiapal, Thana No. : 981, Distt. : East Singhbhum, Jharkhand (2.91 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III.

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9. Jario & Soso Stone Block of Shri Subhash Agarwal, Village : Jario & Soso, P.O. & P.S. : Rajrappa, Distt. : Ramgarh, Jharkhand (2.02 Ha).

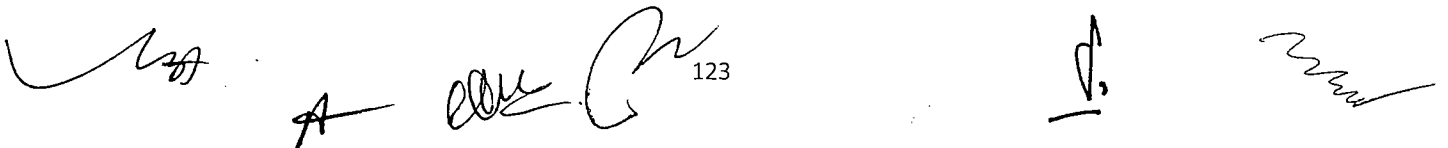
(Proposal No. : SIA/JH/MIN/403243/2022)

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 28566.90 cu.m/annum or 82844.0 TPA

Name of the consultant: P & M Solution, Noida, UP.

This is a new project which has been taken for appraisal on 04.11.2022.

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**Project and Location Details :**

Sl	Parameter	Details	
1	Project Name	: Jario & Soso Stone Block	
2	Lessee:	: M/S Sri Subhash Agarwal Flat No.- 4D, Radha Krishna Apartment, Matkuria, Dhanbad, Jharkhand	
3	Lease Address	: Village – Jario & Soso, PO & PS- Rajrappa, District – Ramgarh, State –Jharkhand.	
4	Lease Area	: 2.02 ha	Acres- 5.00 Acres
5	Type of Land	: Non Forest – Raiyati Land	
6	Project Cost	: Rs. 60 Lakhs	
7	EMP Budget	: Capital: 4.92 Lakhs	Recurring: 3.27 Lakh / year
8	CSR / CER Budget	: Rs. 1.20 Lakhs	
9	New or Expansion	: New	
10	Mineable Reserves	: cum.: 242109.34 cum	Tonnes: 699696.0 tons
11	Mine Life	: 8.50 years	
12	Man power	: 30	
13	Water Requirement	: 9.50 KLD(Drinking: 0.30 KLD, Dust Suppression: 5.67 KLD, Plantation: 3.52 KLD)	
14	Water Source	: From Nearby villages by tankers	
15	DG Set / power	: 500 KVA	
16	Crusher	: No crusher	
17	Nearest Water Body	: Damodar River, at approx. 6.50 km, North direction	
18	Nearest Habitation	: Jario village, at 800 meters	
19	Nearest Rail Station	: Mael Railway station, approx. 3.05 km towards East direction.	
20	Nearest Air Port	: Birsa Munda Airport, approx. 39.60 km towards SW direction.	
21	Nearest Forest	: Protected Forest near Goratu, at approx 4.60 km towards SW direction of mine site. Protected Forest near Kachudag, at approx 6.08 km towards West direction of mine site.	
22	Road & Highways	: NH- 20, at approx. 6.90 km. in NW direction.	

**CO-ORDINATES**

1	Latitude	From 23°34'24.67"N	To 23°34'29.89"N
2	Longitude	From 85°35'38.99"E	To 85°35'47.03"E

## LAND DETAILS

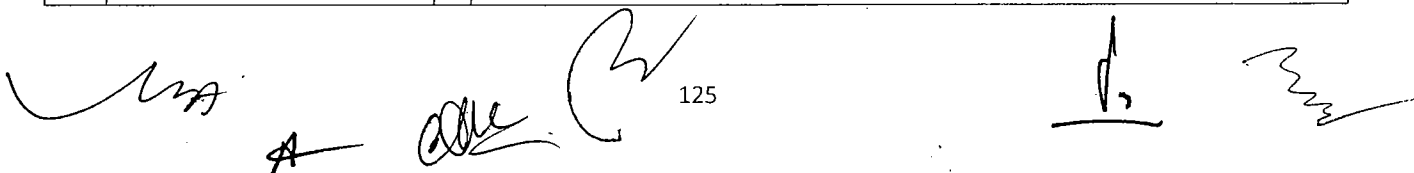
Khata no.	Plot no.
86	708 (P)
157	89 (P)

## STATUTORY CLEARANCES

1	LOI/Lease docs	:	The LOI has been issued by Director of Mines, Deptt. of Mines & Geology, Govt. of Jharkhand vide letter no. Kha.Ni(Nilami)-79/2022 /1624/M/Ranchi, dated 29.07.2022.
2	CO	:	The CO, Dulmi (Ramgarh) vide letter no. 118, dated 27.03.2019 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyon & Register II.
3	DMO	:	DMO, Ramgarh vide memo no. 709/khanan, dated 28.07.2022 certified that 01 other lease exists (6.80 acre) within 500 m radius from proposed project and total area is less than 5 Ha.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 1793, dated 10.09.2022 certified that the proposed project site is outside notified ESZ of Hazaribag Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Ramgarh Forest Division vide letter no. 1979, dated 08.10.2022 certified that the distance of reserved / protected forest is more than 250 m from the project site.
6	DSR	:	The project is already mentioned in page no. 25 of District Survey Report (DSR) of District Ramgarh.
7	Gram Sabha	:	The gram sabha conducted respectively on 04.08.2022 and 08.08.2022
8	Mine Plan Approval	:	Mine plan approved by Additional Director, Geology, Hazaribag vide Memo no. 283/G, dated 08.10.2022

## Working Details

1	Mining Method	:	Opencast semi Mechanized Mining method
2	Quarry Area	:	5 years-1.555ha Life of Mine - 1.555 ha
3	Waste Generation	:	5 years- 0.00 cu.m
4	Stripping Ratio	:	1: 00



5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	377 AMSL to 393 AMSL
8	Ground Level Elevation	:	377 AMSL
9	Ultimate Working Depth	:	370 AMSL (7mbgl)
10	Water Table	:	330 AMSL (20mbgl)
11	Topography of Mine	:	Area represents undulating of Granite/Gneiss
12	Explosive Requirement	:	8kg/day
13	Diesel/Fuel requirement	:	90 litre/day

### Production Details

Year	Production of stone (cum)	Production of stone (tons)	Bench RL in Meters
1 <sup>st</sup>	28565.52	82840.0	380mRL - 386mRL
2 <sup>nd</sup>	28566.55	82843.0	374mRL - 380mRL
3 <sup>rd</sup>	28566.90	82844.0	368mRL - 374mRL
4 <sup>th</sup>	28566.90	82844.0	368mRL - 374mRL
5 <sup>th</sup>	28566.90	82844.0	362mRL - 368mRL
<b>Total</b>	<b>142832.77</b>	<b>414215.0</b>	

### Land Use

Type of Land Use	Existing (ha)	During Plan Period (ha)	During Conceptual Period/after closure of mines (ha)
Quarry	1.069	1.555 (0.024 ha road comes under)	1.555 (0.969 ha area will be converted into Rain Water Harvesting & rest 0.586 ha area dead bench plantation)
Road	0.003	0.003	0.003
Safety Zone	-	0.462	0.462
<b>Total</b>	<b>1.072</b>	<b>2.02</b>	-
Untouched Area	0.948	-	-
<b>Total Lease Hold Area</b>	<b>2.02</b>	<b>2.02</b>	<b>2.02</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development

S. No.	Location		Area/Length	No of Trees
1	Safety Zone	:	0.231 ha	1200
2	Along Approach Road		0.560 km	560

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

### Solid Waste Management

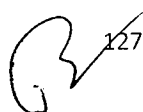
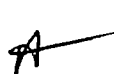
- Only small amount of waste will be generated, which shall be used in making and maintenance of haul road and village road, so there is no requirement of waste dumping Plan for this mining plan period.

### Water Quality Management

- Mining is planned to above the ground water table. In case any intersection is likely, mining activities will be stopped 2m above the Ground Water Table.
- The rain water during rainy season will be collected in a pit and shall be use for dust suppression and plantation.Excess water, if any shall be discharged in natural stream after settling of suspendedparticles in the pit. Pump having required capacity will be installed to liftaccumulated rain water from working pit and pumped to the settling tank.
- Garland drain shall be made around the Waste dump and the rain water shall becollected in garland drain and allowed to settle in a small pit for settling suspendedparticles before allowing discharge to natural drainage system. Check Pits and Retainer walls shall be constructed to prevent water flowing into the lease area from outside or from inside the lease area to the outside
- For domestic waste water Septic Tank with Soak Pit shall be provided, dischargefrom Soak Pit, if any shall be used for plantation.
- It shall be ensured that quality of drinking water for the worker is hygienic and goodsanitation system shall be made available.

### Air Quality Management

- Dust extractor or wet drilling shall be followed to control dust at source of emission during drilling.



- Sharp drill bits will be used for drilling and regrinding will be done periodically to reduce the dust generation.
- Controlled blasting to reduce dust emission and reduction in NOx emission
- All machineries and transport vehicles shall be properly maintained and pollution check will be done once in a year to keep the emissions from machineries and vehicle under control. Records for same to be maintained.
- Water sprinkling will be done on haul road to control emission of dust while transporting minerals and waste. Provision for water spray by tankers on 'kaccha road shall be done.
- Water sprinkling at loading area shall be done
- Use of personal protective equipment like dust mask e.t.c shall be put in practice
- Ambient air pollution monitoring shall be carried out every six months

**Undertaking submitted affirming:**

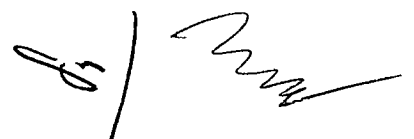
- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Jario & Soso Stone Block of Shri Subhash Agarwal, Village : Jario & Soso, P.O. & P.S. : Rajrappa, Distt. : Ramgarh, Jharkhand (2.02 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III.

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21	Nearest Forest	:	Open Mixed Jungle, at approx. 4.98 km towards SW direction of mine site.
22	Road & Highways	:	NH- 220, at approx. 3.74 km. in NW direction.

### CO-ORDINATES

1	Latitude	From 22°33'20.90"N	To 22°33'26.20"N
2	Longitude	From 86°09'05.80"E	To 86°09'10.60"E

### LAND DETAILS

Khata no.	Plot no.
234	152(P)

### STATUTORY CLEARANCES

1	LOI/Lease docs	:	The LOI has been issued by Director of Mines, Deptt. of Mines & Geology, Govt. of Jharkhand vide letter no. Kha.Ni(Nilami)-30/2022/1656/M/Ranchi, dated 02.08.2022.
2	CO	:	The CO, Potka, East Singhbhum vide letter no. 558, dated 23.08.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, East Singhbhum, Jamshedpur vide letter no. 767/khanan, dated 14.09.2022 certified that no other lease area exists within 500 m radius from proposed project.
4	DFO Dalma Elephant Project	:	DFO, Dalma Elephant Project vide letter no. 1205, dated 24.08.2022 certified that the proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Jamshedpur Forest Division vide letter no. 1976 dated 25.08.2022 certified that the distance of reserved / protected forest is more than 250 m from the project site.
6	DSR	:	The project is already mentioned in page no. 27 of District Survey Report (DSR) of District East Singhbhum.
7	Gram Sabha	:	On 19.08.2022
8	Mine Plan Approval	:	Mine plan approved by Additional Director, Geology, Hazaribag vide Letter no. G/2022-23-240, dated 12.09.2022.

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### Working Details

1	Mining Method	:	Opencast other than fully Mechanized (OTFM) Mining method
2	Quarry Area	:	5 years–0.873ha      Life of Mine – 0.962 ha
3	Waste Generation	:	5 years– 4169.08 cum or 10422.7 tons
4	Stripping Ratio	:	1: 0.021
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	194 AMSL to 217 AMSL
8	Ground Level Elevation	:	217 AMSL
9	Ultimate Working Depth	:	170 AMSL (24mbgl )
10	Water Table	:	150 AMSL (44mbgl)
11	Topography of Mine	:	Area represents small hillock
12	Explosive Requirement	:	8kg/day
13	Diesel/Fuel requirement	:	90 litre/day

### Production Details

Year	Production of stone (cum)	Production of stone (tons)	Total Waste (cum)	Bench RL in Meters
1 <sup>st</sup>	15842.67	39606.68	833.82	206mRL - 217mRL
2 <sup>nd</sup>	15849.80	39624.50	834.20	200mRL - 206mRL
3 <sup>rd</sup>	15840.30	39600.75	833.70	200mRL - 206mRL
4 <sup>th</sup>	15839.73	39599.32	833.67	200mRL - 206mRL
5 <sup>th</sup>	15840.11	39600.27	833.69	194mRL - 200mRL
<b>Total</b>	<b>79212.61</b>	<b>198031.52</b>	<b>4169.08</b>	

### Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Excavation	0.540	0.873	0.962 (will be converted in to water reservoir)
Road	0.120	0.070	0.06

Infrastructure	-	0.050	-
Safety Zone	-	0.240 (plantation)	0.240 (plantation)
<b>Total</b>	<b>0.660</b>	<b>1.233</b>	<b>1.262</b>
Balanced Area	0.602	0.029	-
<b>Total Applied Area</b>	<b>1.262</b>	<b>1.262</b>	<b>1.262</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development

S. No.	Location		Area/Length	No. of Trees
1	Safety Zone	:	0.240 ha	600
2	Along Approach Road		0.180 km	180

About 300 plants will be distributed in village areas like School premises, Aangawadi, Panchayat Bhavan and other places. Therefore, total number of Plantation will be 1080 no. of plants.

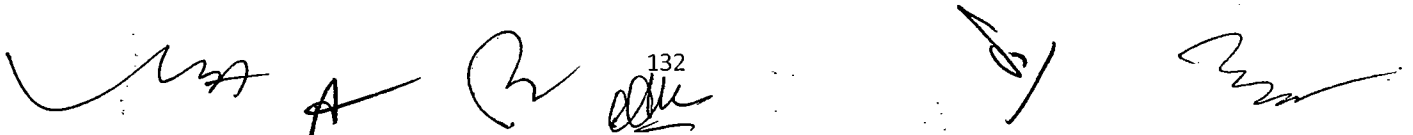
- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

### Solid Waste Management

- Total 4169.08 cum or 10422.7 tons waste during the plan period will be generated which shall be used in making and maintenance of haul road and village road, so there is no requirement of waste dumping Plan for this mining plan period.

### Water Quality Management

- Mining is planned to above the ground water table. In case any intersection is likely, mining activities will be stopped 2m above the Ground Water Table.
- The rain water during rainy season will be collected in a pit and shall be use for dust suppression and plantation.Excess water, if any shall be discharged in natural stream after settling of suspendedparticles in the pit. Pump having required capacity will be installed to liftaccumulated rain water from working pit and pumped to the settling tank.
- Garland drain shall be made around the Waste dump and the rain water shall becollected in garland drain and allowed to settle in a small pit for settling suspendedparticles before allowing discharge to natural drainage system. Check Pits and Retainer walls shall be constructed to



prevent water flowing into the lease area from outside or from inside the lease area to the outside

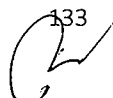
- For domestic waste water Septic Tank with Soak Pit shall be provided, discharge from Soak Pit, if any shall be used for plantation.
- It shall be ensured that quality of drinking water for the worker is hygienic and good sanitation system shall be made available.

#### **Air Quality Management**

- Dust extractor or wet drilling shall be followed to control dust at source of emission during drilling.
- Sharp drill bits will be used for drilling and regrinding will be done periodically to reduce the dust generation.
- Controlled blasting to reduce dust emission and reduction in NOx emission
- All machineries and transport vehicles shall be properly maintained and pollution check will be done once in a year to keep the emissions from machineries and vehicle under control. Records for same to be maintained.
- Water sprinkling will be done on haul road to control emission of dust while transporting minerals and waste. Provision for water spray by tankers on 'kaccha road shall be done.
- Water sprinkling at loading area shall be done
- Use of personal protective equipment like dust mask e.t.c shall be put in practice
- Ambient air pollution monitoring shall be carried out every six months

#### **Undertaking submitted affirming:**

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.



- i. If any tree felling than necessary permission shall be taken from the competent authority.


During the presentation the following documents were sought :

- i. Land use table to be revised.

The Project Authorities have submitted the above mentioned document.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Chhotahariyan Stone Block of M/s Nishant Roadlines (Prop: Shri Umlesh Ojha), Village : Chhotahariyan, Thana : Ghatsila, Distt. : East Singhbhum, Jharkhand (1.262 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III.

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11. Mundali Stone Deposit of M/s Jai Sriram Pathar Udyog, Village : Mundali, P.O. + P.S. : Mirzachowki, Distt. : Sahebganj, Jharkhand (3 .61 Ha).   
(Proposal No. : SIA/JH/MIN/293068/2022)


The ToR for carrying out EIA/EMP was issued by SEIAA vide letter no. EC/SEIAA/2016-17/1991/2017/61, dated 07.02.2019 for the period of 03 years i.e. upto 06.02.2022. Further vide notification dated 18.01.2021 of MoEF&CC, Govt. of India the validity was extended for a period of 01 year considering the COVID situation. Accordingly, the validity of the ToR issued is upto 06.02.2023.

The Project Authorities have requested for extension of validity of ToR for a further period of 01 year i.e. upto 06.02.2024 citing the reason of due to financial difficulties and the prevailing COVID situation they could not undertake EIA / EMP.

The Committee is of the views that the validity of ToR can be extended for the period of 01 year. As they have applied for extension of validity of ToR more than 03 months prior to the expiry of ToR.

Based on the above discussion and facts the validity extension of ToR upto 06.02.2024 is hereby recommended. All other terms & conditions mentioned in ToR letter no. EC/SEIAA/2016-17/1991/2017/61, dated 07.02.2019 shall remain the same.

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12. Group Housing Project "Garden Valley" of M/s Vinayak Developers and Associates, Village : Hesag, Ward no. : 52 Hatia, Thana no. : 247, P.S. : Jagarnathpur, Distt. : Ranchi, Jharkhand.

(Proposal No. : SIA/JH/INFRA2 /404464/2022)

Project Category: 8 (a) Category B2 – (at par with B1 being violation case)

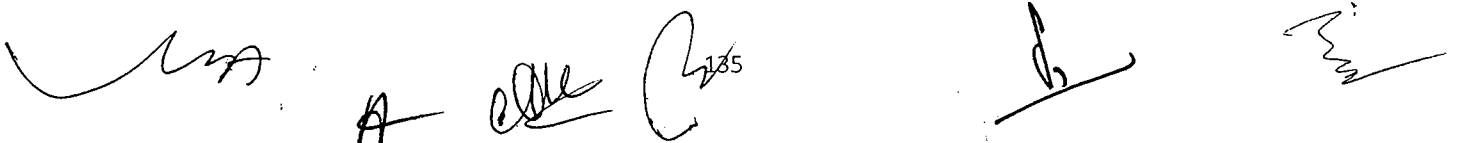
ToR Application for Residential building: Total built-up area of 43498.56 Sqm. (Approx. 25% part of the project has already been constructed).

This is a case of violation which has been taken for appraisal on 13.05.2022 in the light of OM no. F.No.22-21/2020-IA.III [E 138949] dated 28.01.2022 of MoEF&CC, Govt. of India, order passed by Hon'ble Apex Court in the matter of civil appeal no. 7576-7577 of 2021 in Electrosteel Steels Ltd. vs Union of India and SOS vide OM no. F.No. 22-21/2020-IA.III dated 07.07.2021 issued by MoEF&CC, Govt. of India.

Project is classified as Category 8 (a) as per EIA Notification as the built-up area is less than 1,50,000 sqm. and development area is less than 50 ha.

**Project and Location Details :**

Sl. No.	Parameters	Description
46.	Latitude	23°17'27.90"N
47.	Longitude	85°19'23.34"E
48.	Plot Area	9735.37 Sqm. (Or 0.973537 Ha.)
49.	Project Cost	INR 42 Crores
50.	Built-up Area	43498.57 m <sup>2</sup>
51.	Green Belt Area Soft Green Area	1617.78 Sqm. (~16.61% of the plot area) 388.31 Sqm. (3.98%)
52.	Population	Residential: 1724 Nos., Visitors: 172 Nos. & Staff: 35 Nos.
53.	Water Requirement	180 KLD
54.	Fresh Water Requirement	122 KLD
55.	Reuse of Recycled Water	58 KLD
56.	Wastewater Generation	152 KLD
57.	STP Capacity	182 KLD
58.	Total Municipal Waste	807 kg/day Biodegradable Waste: ~ 484 Kg/day Non-Biodegradable Waste: ~323 Kg/day
59.	Power Requirement	1250 KVA (Jharkhand State Electricity board)



60.	DG Sets	250 KVA 1x100 KVA + 3x50 KVA
61.	RWH Pits	4 (42.68 Cumec / hour)
62.	Parking	283 (Four-wheeler), 2 (Physically Handicapped Car), 309 (Two-wheeler), 30 (Visitors car Parking), 1 (Loading/Unloading Parking), 2 (Ambulance), 1 Heavy Vehicle.
63.	Connecting road	Project site is well connected with road. Site is well connected with Hatia Main Road, Ranchi Ring Road & Dhurwa Road
64.	National Highway	Hatia Main Road (Approx. 1.2 km, West) Ranchi Ring Road (Approx. 2.9 km, South) Dhurwa Road (Approx. 3.7 km, NW)
65.	Nearest Railway Station	Hatia Railway Station, (2.4 km, NW)
66.	Airport	Birsa Munda Airport, (Approx. 2.9 km, North)
67.	Nearest Hospitals	City Hospital (Approx. 5.9 km, NNW) Summer Hospital & Research Centre Pvt. Ltd. (Approx. 1.5 km, NW) Heritage Hospital (Approx. 3.3 km, SW)
68.	Nearest Water Bodies	Dhurwa Dam- Approx. 6.6 km, West Ranchi Lake- Approx. 8.2 km, North Lake of Chamber- Approx. 5.5 km, WNW Subarnarekha River - Approx. 0.08 km, SW
69.	EMP Budget	During Construction: Capital: 18 Lakhs Recurring: 20.25 Lakhs  Operational Cost: Capital: 80 Lakhs Recurring: 25 Lakhs
24.	Construction Phase:	Power Back-up: 50 KVA each Water Requirement & Source: Fresh water – 9 KLD Treated wastewater-12 KLD Source: Tanker Water STP (Modular): 20 KLD
25.	Connectivity	Hatia Railway Station: Approx. 2.4 km, NW Birsa Munda Airport: Approx. 2.9 km, North

#### Area Summary

S. No.	Description	Area (Sqm.)
1.	Plot Area at Site	9735.37
2.	Green Belt Area (@16.61% of the plot area)	1617.78 Sqm.

	Soft Green Area (@3.98% of the plot area)	388.31 Sqm.
3.	Open Area and Paved Area	4931.07
4.	Proposed Ground Coverage (@ 34.54% of net plot area)	3344.69
5.	Proposed FAR (@ 3.31 of plot area)	32259.32
6.	Non-FAR Area (Strain Case, Lift, Balcony, Ramp, Accessory Use, Parking)	11239.25
7.	<b>Built-Up</b>	<b>43498.57</b>
8.	Dwelling Units/Units Residential	Block A-108 Block B-66 Block C-66 Block D-72
9.	Height	Approx. 35.85 m

**Co-Ordinates:**

1	Latitude	23°17'27.90"N
2	Longitude	85°19'23.34"E

**Land Details:**

1	Village- Hesag, Ward No.- 52, Hatia, P.S.- Jagarnathpur, P.S. No.- 247, District- Ranchi, Jharkhand	Khata no. 77	Plot No. 848, 847, 858, 1089,
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**Statutory Clearances:**

1	DFO Certificate	: Divisional Forest Officer (DFO), Ranchi Forest Division vide letter no. 4521, dated 04.11.2022 certified that distance of Reserved Forest/Protected Forest is more than 250 meters from project site.
2	DFO wildlife	: DFO, Wild life Ranchi vide letter no. 675, dated 01.08.2022 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
3	CO certificate	: The CO, Namkon, Ranchi vide letter no. 1694 (ii) dated 25.08.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in Khatiyon.
4	AAI NOC	: Airport authority of India issued NOC vide NOC ID RANC/EAST /B/021419/370660, dated 21/02/2019.
5	Fire Department	: A Fire Advisory has been issued by Fire Department, Jharkhand, Ranchi vide memo no. 275/Tech., dated 30.01.2019.
6	Building Plan	: Ranchi Municipal Corporation approved building plan vide case no. BP/W52/0353/18 dated 05.04.2019.

*MA*

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*B<sup>37</sup>*

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**Water and waste water Requirement Details :**

S. No.	Description	No. of units	Unit Population	Population	Unit water consumption (LPCD)	Total water required (kl)	Fresh water required (kld)	Flushing (kld)	Total Wastewater (kld) (80% of domestic +100% Total flushing)
1	Main Dwelling Units (Residential)	1724	5 Person for 2 BHK 6 Person for 3 BHK 4 Person for 1 BHK	1724	100	172	120	52	148
2	Staff @ 2 % of total population	.....	.....	35	45 (30+15)	1.57	1.05	0.52	1.36
3	Visitors (10% of the residential population)	.....	.....	172	15 (5+10)	2.58	0.86	1.72	2.41
<b>Subtotal -I</b>						<b>176.55</b>	<b>121.91</b>	<b>54.24</b>	<b>151.77</b>
<b>Reuse of treated water</b>									
1	Horticulture	1460 Sqm.	3 liter/ sqm of Landscape area	...	...	4.38			
<b>Subtotal II</b>						<b>4</b>			
<b>Grand Total I+II</b>						<b>180</b>			

Category	Total Quantity (KLD)
Fresh water Req. for domestic purpose	122
Flushing water Req.	54
Sewage generation (@80% of the fresh water consumption + 100% flushing water)	152 (98+54)
Capacity of STP	182
Recovered water from STP (80% of Waste water)	122
10. Flushing	54
11. Landscaping	4
12. Discharge to Sewer	64

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## Solid Waste Requirement

S. No.	Category of Solid Waste	Waste Generation Rate	Formula	Total Population	Waste Generated	Bio-degradable	Non-biodegradable
1	Main Dwelling Units (Residential)	0.3 to 0.6 kg/cap/day	Total Population*0.45	1724	775.8	465.48	310.32
2	Staff @ 2 % of total population	0.1 to 0.3 kg/cap/day	Total Population*0.15	35	5.25	3.15	2.1
3	Visitors (15% of the residential population)	0.1 to 0.3 kg/cap/day	Total Population*0.15	172	25.8	15.48	10.32
	<b>Total</b>			<b>1931</b>	<b>807</b>	<b>484</b>	<b>323</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development

- Combination of local trees and shrubs are planned within the project site.
- Green belt will be provided in 1617.78 sqm. (@16.61% of plot area) and Green Cover will be provided in 388.31 sqm. (@3.98 % of plot area), which will enhance the beauty of the site and help combat air and noise pollution.
- The plant species will be selected on the basis of Guidelines for Developing Green Belts, CPCB March 2000.

### Solid Waste Management

#### During Construction Phase

- Construction yards are proposed for storage of construction material.
- Excavated top soil will be stored in temporary constructed soil bank and will be reused for landscaping of the project.
- Remaining soil will be utilized for refilling/road work/raising of site level at locations.
- There will be "Refuse Containers" at site for the management of domestic waste generated by the construction labourers and these containers will be emptied at least once daily.
- Cement bags, waste paper and packing material (cardboard) will be sold off to recyclers.

#### During Operation Phase

- The solid waste will be segregated at source & collected.
- Adequate number of colored bins (green, white & Black) separate for bio-degradable, non-biodegradable and Hazardous waste are proposed to be provided at the strategic location within site.

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- Bio-degradable (will be composted through organic waste converter).
- Recyclable wastes will be disposed to govt. or SPCB approved third party vendors.
- Dewatered sludge can be buried underground in a sanitary landfill. It also may be spread on agricultural land in order to make use of its value as a soil conditioner and fertilizer.
- The Hazardous waste generated will be managed as per the Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016.
- Horticultural Waste is composted and used for gardening purposes.

### **Water Quality Management**

#### **During Construction Phase**

- The site drainage will be planned in such a way that there is no accumulation of water/wastewater within the project premises or in the vicinity of the site.
- Mobile toilets to be provided for construction Labourers.
- Generated waste water will be collected through tankers and dispose to septic tank for treatment.

#### **During Operation Phase**

- STP of capacity i.e. 182 KLD is proposed for treatment of wastewater.
- Treated waste water would be reused for Horticulture, DG cooling, flushing and in nearby construction site/sewer.
- Use of water efficient plumbing fixtures to conserve water.
- Approx. 122 KLD of fresh water is required during operational phase of the project.

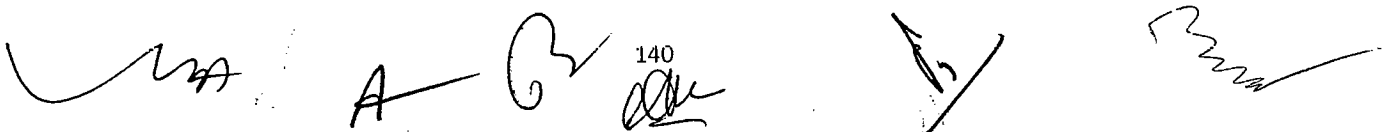
### **Air Quality Management**

- Warehouse/stock yard will be provided for storage of construction material
- Covering of stored construction materials with tarpaulin covers which will be resold to authorized construction material handling agency for reuse.
- Covering of trucks carrying construction materials.
- Dust suppression by water sprinkling.
- Adequate maintenance of construction equipment & vehicles.
- Wheel wash facility at the entry/exit of the site to prevent dust emissions.
- Periodical Ambient Air Quality Monitoring.
- PUC Certified vehicles.
- Glow signs Speed Limits to 20 kmph to reduce emissions on site will be displayed at the important junctions.

### **Energy conservation**

Solar Panels will be used in Street Lights, Common area, Pumping area.

Based on the information contained in the documents submitted and the presentation made before the State Level Expert Appraisal Committee (SEAC) during its meetings held during 02, 03, 04 & 05.11.2022, the Committee recommends for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure V alongwith the following specific conditions :



- I. Details of solid waste from all sources to calculated and including in EIA / EMP report.
- II. The Project Authorities must proposed a minimum of 15% of the plot area for green belt development.
- III. One month baseline data to be generated during the month of November / December, 2022.
- IV. CER budget to be included in the EIA / EMP report.

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Day 4 : November 05<sup>th</sup> , 2022 [Saturday]

**Consideration of Proposals**

1. Proposed Project Group Housing "The Sapphire" of M/s Samay Homes Rep by Mr. Rajesh Kumar Singh, Village : Dhirajganj, Tehsil : Seraikela, Distt. : Seraikela-Kharsawan, Jharkhand.

(Proposal No. : SIA/JH/INFRA2 /402876/2022)

Name of the consultant: Vardan Environet, Gurgaon

This is a new project which has been taken for appraisal on 05.11.2022.


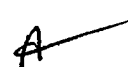




Project is classified as Category 8(a) as per EIA Notification as the built-up area is less than 1,50,000 sqm. and development area is less than 50 ha.

The Proposed "The Sapphire" Project is located at Village-Dhirajganj, Mouza-Jamalpur, Distt.-Seraikella, Jharkhand by M/s Samay Homes Rep By Mr Rajesh Kumar Singh. The partnership having its registered office at Infront of Nissan Motors Showroom, Near Auto Cluster, Tata-Kndra Main Road, Adityapur, Dist. Saraikella, Jharkhand. The project has sale deed. Total land area for Proposed project is 28,678.47 m<sup>2</sup> (7.086 Acres) and total Built up area for the same comes out to be 1,39,132.09 m<sup>2</sup>.

Item	Details
Project Name	Proposed Project Group Housing "The Sapphire" of M/s Samay Homes Rep by Mr. Rajesh Kumar Singh at Village: Dhirajganj, Mauza: Jamalpur, District: Saraikela - Kharsawan, State: Jharkhand.
Location	Village – Dhirajganj, Mauza - Jamalpur Tehsil – Gamharia District– Sareikela-Kharsawan State – Jharkhand

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Total Built-Up Area & its break - up	S. No.	Description	Total Area (S.qm.)
	1	Total Plot Area	28,678.47
	2	Proposed Ground Coverage	7,178.22
	3	Permissible FAR	1,00,374.65
	4	Proposed FAR	91,245.36
	5	FAR area for Commercial Area	208.6
	6	Assembly	1,302.12
	7	Public Utility	619.65
	8	Stairs	345.78
	9	Total FAR(Residential+Commercial)	93,721.51
	10	Community hall	1921.77
	11	Non FAR Area	45,410.58
	12	Built up Area (FAR+Non FAR)	1,39,132.09
	13	Green Area (@ 27%)	7,920.39
14	Road Area	13,579.86	
Particular	Residential Block	Commercial Block	
Height	46.35 Meter (max.)	9 Meter (max.)	
Number of Block	Phase 1 (Block T1 & T2), Phase 1 Block (B, C & Circular), Phase 2 Block (A, B, C)	Commercial Building (G + 2)	
Population	Total No. of Occupancy: 6474	Total no. of population: 70	
Municipal Solid Waste	Total Waste = 2820 Kg/day (~ 2.820 T/day) Bio-Degradable = 1692 Kg/day or say 1.692 T/day Non-Biodegradable= 1128 Kg/day or say 1.128 T/day		
Parking	<b>Total parking = 1104 ECS</b> Parking Including Open Space Triplex = 60 ECS PH-1 Basement = 240 ECS PH-2 Basement = 676 ECS Open = 128 ECS		
Power Requirement	Total Power Required: 7704 KW. The power shall be sourced by (Jharkhand Urja Vikas Nigam Limited). DG Set: 07 no. of DG sets having total capacity of 7,860 KVA i.e. (4×1250 kVA+2×630kVA+1×1600 kVA) Total Solar Lighting 116.9 KW – 14.9 KW (Phase-1) + 102 KW (Phase-2)		
RWH Pits	7 Nos of Recharge pit		
Plot Area	28,678.47 m <sup>2</sup> , or 7.086 Acres		
Proposed Ground Coverage	7,178.22 m <sup>2</sup> (25.03% of the plot area))		
Landscape Area	7,920.39 m <sup>2</sup> (27 % of the plot area)		
Road & Paved Area	13579.86 m <sup>2</sup>		
Area of STP & Sewerage	215.08 m <sup>2</sup> (0.75% of the plot area)		
Total Built Up Area	1,39,132.09 m <sup>2</sup>		
F.A.R	3.5		
Total Parking Provided	1,104 ECS		
Parking Area provided ECS	Parking Including Open Space Triplex – 60 ECS PH-1 Basement = 240 ECS PH-2 Basement = 676 ECS Open = 128 ECS		

Maximum height of building	46.35
Total no. of Dwelling Units	Total: 826 (Residential flats - 826 Units + Community Hall – 1)
No. of Floors	Lower Basement, Upper Basement, Ground Floor, 1-15th Floor
Total Project Cost	Rs. 144.83 Crores.
EMP Cost (Construction Phase)	Capital Cost: Rs. 21.90 Lakhs Recurring Cost: Rs. 6.50 Lakhs
EMP Cost (Operational Phase)	Capital Cost: Rs. 147.00 Lakhs Recurring Cost: Rs. 16.40 Lakhs
Disaster Management	Separate Assembly Points will be marked for each section. Residents will be made aware of the safety protocols and escape routes.

**Khata no. & Plot no. of the project :**

Old Khata No.	Old Plot No.
12	162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172
15	127, 132, 140, 142, 143, 144, 145, 146, 146/A, 147, 147/A, 148, 148/A, 149, 149/A, 150, 150/A, 152, 153, 157, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 233, 231
09	175, 180
10	174, 177
32	159, 139
33	160

**Latitude & Longitude :**

Point	Latitude	Longitude
A	22° 48' 56.712" N	86° 7' 20.742" E
B	22° 48' 56.362" N	86° 7' 24.356" E
C	22° 48' 52.668" N	86° 7' 24.667" E
D	22° 48' 48.226" N	86° 7' 24.051" E
E	22° 48' 45.683" N	86° 7' 23.310" E
F	22° 48' 46.316" N	86° 7' 21.192" E

❖ **Water & Wastewater**

Water Demand	Commercial	Residential	Total	Source
Domestic	0.50 KLD	453.52 KLD	454 KLD	Fresh Water
Flushing	0.70 KLD	240.6 KLD	241.4 KLD or say 241 KLD	Treated Water
Horticulture	--	--	40.0 KLD	Treated Water
<b>Total</b>	<b>1.20 KLD</b>	<b>694.1 KLD</b>	<b>735 KLD</b>	

**STP:** STP of capacity 800 KLD, based on MBBR technology will be installed. Wastewater generated 605 KLD will be processed in the STP and treated water 281 KLD will be reused for various purposes, such as flushing, horticulture, etc. Excess treated water 264 KLD will be discharged to public sewer after meeting the CPCB Standards.

❖ **Connectivity**

Road

Proposed Project Site is well connected to a network of Tata Kandra Road at distance of 1.3 km from the project site through network of City Roads.

Railway

Gamharia Junction Railway Station is 2.84 km away from the project site towards S-S-W direction.

Adityapur - Train station is 5 km away from the project site towards S-S-E direction.

Air

The nearest airport is Sonari Airport which is 5.39 km away from the project site towards E direction.

❖ **Project Surroundings**

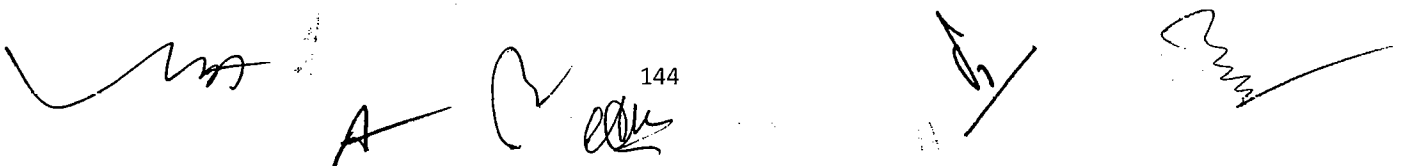
Project site is located in Adityapur Municipal Corporation area.

Nearest Airport	- Sonari Airport
Nearest Highways	- Tata –Kandra Highway
Nearest Railway Station	- Gamharia Junction Railway Station
Nearest City	- Jamshedpur (Shivnagar) 2.7 Km (SE)
River Body	- Subarnarekha River, Kharkai River
Site Topography	- mostly flat with slight undulation
Archaeological Site	- None within 10 km Radius
National Parks	- None within 10 km Radius
Project / Reserve Forest	- Dalma P.F are situated within 10 km Radius
Seismicity	- Zone II

❖ **Solid Waste Management**

Construction Phase

Solid Waste generated during construction phase would include top soil, brick bats, pieces of reinforcing roads, pieces of wood boards & waste of other construction material, cans of paints electrical wire, etc.

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Top Soil would be separately stored at pre-defined location within the site & preserved for landscaping. Sub – Soil would be stored for reuse in road making, plinth filling, etc.

Brick bats, wastes of concrete would also be stored for road construction, plinth filling, etc. Surplus C & D waste would be handed over to Municipal Waste Management Facility. E-Waste & Hazardous waste (cans of paints would be collected in separate covered areas and handed over to registered recyclers. Recyclable wastes including bags, packing, pieces of steel rods etc. will be sold to scrap dealers.

### Operational Phase

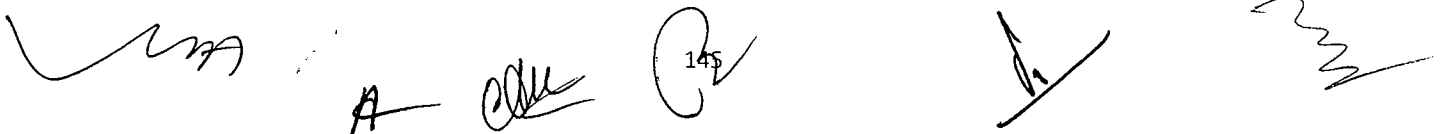
During operational phase of buildings municipal solid waste would be generated. They would be stored in different color bins.

✓ Recyclable Waste	- Blue
✓ Wet (Bio-Degradable) Waste	- Green
✓ E-Waste	- Yellow
✓ Hazardous Waste	- Red
✓ Inert Waste	- Blue

- E-Waste & Hazardous Wastes generated, if any, would be handed over to authorized recyclers/re-processors.
- Total Municipal Solid Waste generation will be approx. 2.820 T/day.
- Biodegradable Waste – 1.692 T/Day (waste vegetables and foods etc.)
- The biodegradable organic wastes will be treated inside the premises by OWC (Organic Waste Converter) having capacity of 2.0 T/day.
- Non-biodegradable or recyclable- 1.128 Ton/day. (Papers, cartons, thermo-cool, plastics, glass etc.)
- Non-recyclable wastes will be disposed through Govt. approved agency with help of local body.
- Total area for storage and segregation of waste = 100 M<sup>2</sup>
- Total area requirement for organic waste composting = 50 M<sup>2</sup>

### ❖ Energy Saving Measures:

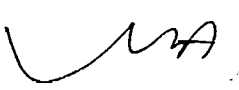
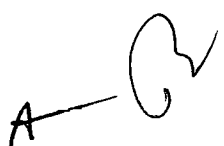
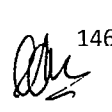


- Use of local building material to reduce pollution & transportation energy.
- All the pumps shall have minimum efficiency as per ECBC norms
- Energy efficient building envelope-use of fly ash bricks/AAC blocks for external walls
- Insulation to roof.



- Programmable switching arrangement for external lighting to prevent wastage of energy.
- Energy efficient lighting fixture LED lamps to be provided in common areas.
- Adequate solar panels (14.9 KW in Phase-1 & 102 KW in Phase-2) will be installed to conserve energy.
- Total energy conservation at final stage is envisaged as 5-6% of the energy requirement of the project.

**STATUTORY CLEARANCES :**

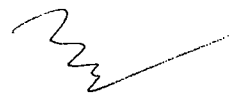
1	DFO Forest Distance		DFO, Seraikela Forest division vide letter no. 1856, dated 10.09.2022 certified that the distance of notified forest is 05 m from proposed project site.
2	DFO wildlife	:	DFO, Dalma Elephant Project vide letter no. 1289, dated 07.09.2022 certified that proposed project site is outside Dalma Wildlife Sanctuary of Eco Sensitive Zone. The additional comments given by the DFO, Dalma Elephant Project is not appropriate.
3	CO certificate	:	The CO, Gamharia vide memo no. 762, dated 14.09.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyon & Register II.
4	AAI NOC	:	Airport authority of India issued NOC vide NOC ID JAMS/EAST/B/092270/480323, dated 01.10.2020.
5	Fire Department	:	A fire advisory has been issued by Fire Department, Jharkhad, Ranchi vide letter no. 1663/Tech/2020, dated 05.08.2020.
6	Building Plan	:	Building Plan approved by Adityapur Municipal Corporation vide memo no. AMC/GH/0082/W02/2020, dated 03.09.2021.
7	Water Assurance and Sewerage Discharge Assurance	:	Adityapur Nagar Nigam, Adityapur vide letter no. 1893, dated 13.07.2022.
8	Electricity Assurance	:	Jharkhand Bijli vitran Nigam Limited (JBVNL) vide letter dated 03.07.2022

Based on the presentation made and information provided, the Committee decided that the proposal for Proposed Project Group Housing "The Sapphire" of M/s Samay Homes Rep by Rajesh Kumar Singh, Village : Dhirajganj, Tehsil : Seraikela, Distt. : Seraikela-Kharsa Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed in Annexure – II alongwith the following specific conditions :

- I. The Project Authorities are required to submit a revised a corrected DFO Water certificate prior to issuance of EC.
- II. Environment management system including organization structure to be drawn up to ensure compliance of EC conditions stipulated based on principles of Continuous Improvement and periodical management review.
- III. All raw material to be stored only under covered shed.
- IV. PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect to reduce heat islands.
- V. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load. It is to be achieved by solar panels etc meeting ECBC norms.
- VI. Trees should be developed & maintained not less than 15% of project area.
- VII. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all the organic waste (bio degradable) generated is composted at source only.
- VIII. Developers/Company to install STP of sufficient capacity such that all the sewage produced is treated and reused.
- IX. Developers/Company to install Rain water harvesting structures such that all the top water runoff is collected and harvested including reuse on 100% basis.
- X. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- XI. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging conditions outside.
- XII. Sufficient number of EV fast charging point to be installed.

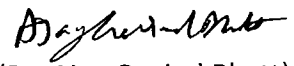
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The meeting concluded with thanks to all present.



(Dr. Raju Kumar)  
Member



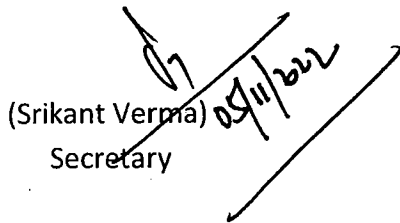
(Dr. Ajay Govind Bhatt)  
Member



(Niranjan Lal Agarwalla)  
Member



(Dr. Kirti Avishek)  
Member



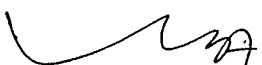
(Srikant Verma)  
Secretary



(Ashok Kumar Singh)  
Chairman

The TORs prescribed for undertaking detailed EIA study are as follows:

1. The EIA Report shall be prepared for 2 MTPA rated capacity in an ML / project area of 211.82 ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.
2. An EIA-EMP Report would be prepared for 2 MTPA rated capacity to cover the impacts and management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modeling for 2 MTPA of coal production based on approved project/Mining Plan for 2 MTPA. Baseline data collection can be for any season except monsoon.
3. A map specifying locations of the State, District and Project location should be provided.
4. A Study area map of the core zone and 10 km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage pattern including rivers/streams/nullahs/canals, locations of human habitations, major constructions including railways, roads, pipelines, major industries/mines and other polluting sources. In case of ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves, forests (Reserved/Protected), migratory corridors of fauna, and areas where endangered fauna and plants of medicinal and economic importance found in the 15 km study area should be given.
5. Land use map (1: 50,000 scale) based on a recent satellite imagery of the study area may also be provided with explanatory note on the land use.
6. Map showing the core zone delineating the agricultural land (irrigated and un-irrigated, uncultivable land as defined in the revenue records, forest areas (as per records), along with other physical features such as water bodies, etc should be furnished.
7. A contour map showing the area drainage of the core zone and 25 km of the study area (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated in the separate map.
8. A detailed Site plan of the mine showing the proposed break-up of the land for mining operations such as the quarry area, OB dumps, green belt, safety zone, buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within and adjacent to the ML), undisturbed area -if any, and landscape features such as existing roads, drains/natural water bodies to be left undisturbed along with any natural drainage adjoining the lease /project areas, and modification thereof in terms of construction of embankments/bunds, proposed diversion/re-channelling of the water courses, etc., approach roads, major haul roads, etc should be indicated.
9. In case of any proposed diversion of nallah/canal/river, the proposed route of diversion /modification of drainage and their realignment, construction of embankment etc. should also be shown on the map as per the approval of Irrigation and Flood Control Department of the concerned state.








10. Similarly if the project involves diversion of any road/railway line passing through the ML/project area, the proposed route of diversion and its realignment should be shown in the map.
11. Break up of lease/project area as per different land uses and their stage of acquisition should be provided.

Land use details for opencast project should be given as per the following table :

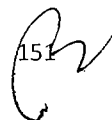
S. N.	Land use	Within ML area	Outside ML area	Total
1.	Agricultural land			
2.	Forest land			
3.	Wasteland			
4.	Grazing land			
5.	Surface water bodies			
6.	Settlements			
7.	Others (specify)			

12. Break-up of lease/project area as per mining operations should be provided.
13. Impact of changes in the land use due to the project, if much of the land being acquired is predominantly agricultural land/forestland/grazing land.
14. One-season (non-monsoon) primary baseline data on environmental quality - air (PM10, PM2.5, SOx, NOx and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.
15. Map of the study area (1: 50, 000 scale) (core and buffer zone clearly delineating the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources should be provided. The number and location of the stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Values should be provided based on desirable limits.
16. Study on the existing flora and fauna in the study area (10km) should be carried out by an institution of relevant discipline. The list of flora and fauna duly authenticated separately for the core and study area and a statement clearly specifying whether the study area forms a part of the migratory corridor of any endangered fauna should be given. If the study area has endangered flora fauna and, or if the area is occasionally visited or used as a habitat by Schedule-I fauna, or if the project falls within 15 km of an ecologically sensitive area, or used as a migratory corridor then a Comprehensive Conservation Plan should be prepared and submitted with EIA-EMP Report; and comments from the CWLW of the State Govt. should also be obtained and furnished.
17. Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working scheme until the end of mine life should be provided on the basis of the approved rated capacity and calendar




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plans of production from the approved Mining Plan. Geological maps and sections should be included.

18. Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis-à-vis the potential impacts should be provided.
19. Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.
20. Detailed water balance along with flow chart should be provided. The break-up of water requirement for the various mine operations should be given separately.
21. Source of water for use in mine, sanction of the competent authority in the State Govt. and impacts vis-à-vis the competing users should be given.
22. Impact of mining and water abstraction use in mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.
23. Impact of blasting, noise and vibrations should be given.
24. Impacts of mining on the AAQ and predictions based on modeling using the ISCST-3 (Revised) or latest model should be provided.
25. Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop, management plan for maintenance of HEMM, machinery, equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.
26. Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP / Silo entirely wagons and into trucks / tippers.
27. Details of waste OB and topsoil generated as per the approved calendar programme, and their management shown in figures as well explanatory notes tables giving progressive development and mine closure plan, green belt development, backfilling programme and conceptual post mining land use should be given. OB dump heights and terracing based on slope stability studies with a max of 28° angle as the ultimate slope should be given. Sections of final dumps (both longitudinal and cross section) with relation to the adjacent area should be shown.
28. Efforts be made for maximizing progressive internal dumping of O.B., sequential mining , external dump on coal bearing area and later rehandling into the mine void.--to reduce land degradation.
29. Impact of change in land use from mining operations and whether the land can be restored to agriculture use post mining.



30. Progressive Green belt and Ecological restoration /afforestation plan (both in text, figures and in the tabular form as per the format of MOEF&CC given below) and selection of species (native) based on original survey/land use should be given.
31. Conceptual Final Mine Closure Plan and post mining land use and restoration of land/habitat to the status of pre- mining should be provided. A Plan for the ecological restoration of the mined out area and post mining land use should be prepared with detailed cost provisions. Impact and management of wastes and issues of rehandling (wherever applicable) and backfilling and progressive mine closure and reclamation should be detailed.

Table 3 : Post-Mining land use pattern of ML / Project area (ha)

Land use during mining	Land use (ha)				
	Plantation	Water body	Public use	Undisturbed	Total
External OB dump					
Top soil dump					
Excavation					
Roads					
Built up area					
Green belt					
Undisturbed area					
	Total				

32. Flow chart of water balance should be provided. Treatment of effluents from workshop, township, domestic wastewater, mine water discharge, etc. should be provided. Details of STP in colony and ETP in mine should be given. Recycling of water to the max. possible extent should be accorded ?.
33. Occupational health issues. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower in the mine should be given.
34. Risk Assessment and Disaster Preparedness and Management Plan should be provided.
35. Integration of the Environmental Management Plan with measures for minimizing use of natural resources - water, land, energy, etc. should be carried out.
36. Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.



37. Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribals, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.
38. CSR Plan along with details of villages and specific budgetary provisions (capital and recurring) for specific activities over the life of the project should be given.
39. Corporate Environment Responsibility:
  - a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
  - b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
  - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
  - d) To have proper checks and balances, the company should have a well laid down 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.
40. In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.
41. Status of any litigations/ court cases filed/pending on the project should be provided.
42. Submission of sample test analysis of Characteristics of coal: This should include details on grade of coal and other characteristics such as ash content, S and heavy metals including levels of Hg, As, Pb, Cr etc.
43. Copy of clearances/approvals such as Forestry clearances, Mining Plan Approval, mine closer plan approval. NOC from Flood and Irrigation Dept. (if req.), etc. wherever applicable.

Details on the Forest Clearance should be given as per the format given :

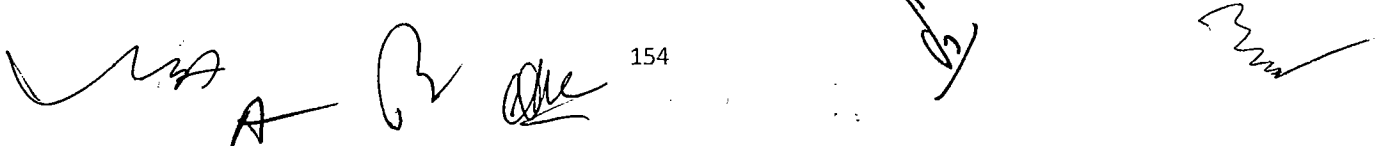
Total ML / Project area (ha)	Total forest land (ha)	Date of FC	Extent of forest land	Balance area for which FC is yet to be obtained	Status of application for diversion of forest land

44. Besides the above, the below mentioned general points should also be followed:-
- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
  - b) All documents may be properly referenced with index and continuous page numbering.
  - c) Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
  - d) Where the documents provided are in a language other than English, an English translation should be provided.
  - e) The Questionnaire for environmental appraisal of mining projects as prescribed by the Ministry shall also be filled and submitted.
  - f) Approved mine plan along with copy of the approval letter for the proposed capacity should also be submitted.
  - g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M. No. J-11013 /41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.
  - h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of SEIAA, Jharkhand with reasons for such changes and permission should be sought, as the TOR may also have to be altered.

The EIA report should also include

1. surface plan of the area indicating Contours of main topographic features, drainage and mining area.
2. geological maps and sections and
3. sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

After preparing the draft EIA (as per the generic structure prescribed in Appendix- III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006. The prescribed TORs would be valid for a period of three years for submission of the EIA / EMP reports, as per the O.M. No. J-11015/109/2013-IA.II(M) , dated 12.01.2017.

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**I. Statutory Compliance**

- i. 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.
- ii. 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.
- iii. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
- iv. In the writ petition (Civil) no. 202/1995, T.N. Godaverman Thirumulpad vs union of India and ors. the Hon'ble Supreme Court passed an order dated 03.06.2022 " National Park or Wildlife Sanctuary must have an ESZ of minimum 01 km in which the activities prescribed and prescribed in the guidelines of 09th February, 2011 shall be strictly adhered to ".
- v. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- vi. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- vii. The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
- viii. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- ix. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.
- x. The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- xi. The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.
- xii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel (kerosene/gas) for cooking, safe drinking water, medical health care, etc. The housing may be in the form of temporary structures to be removed after completion of the project.



A



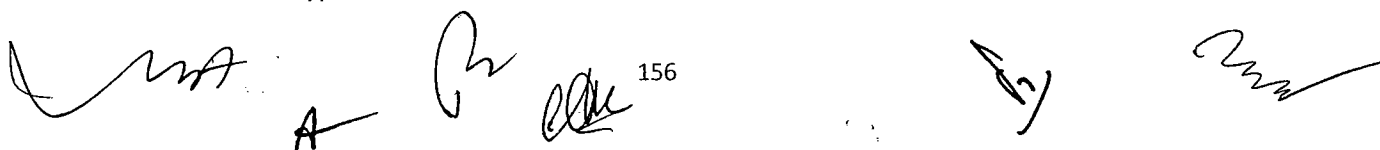
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- xiii. Provision of drinking water, waste water disposal, solid wastes management and primary health facilities shall be ensured for labour force. Proper sanitation facilities shall be provided at the construction site to prevent health related problems. Domestic as well as sanitary wastes from construction camps shall be cleared regularly.
- xiv. All the labourers to be engaged for construction works shall be screened for health and adequately treated before issue of work permits. The contractor shall ensure periodic health check-up of construction workers.
- xv. All vehicles/equipment deployed during construction phase shall be ensured in good working condition and shall conform to applicable air and noise emission standards. These shall be operated only during non-peaking hours.
- xvi. Accumulation/stagnation of water shall be avoided ensuring vector control.
- xvii. Water during construction phase should be preferred from Municipal supply.
- xviii. Unskilled construction labourers shall be recruited from the local areas.
- xix. Monitoring of ground water table and quality once in three months shall be carried out. Construction of tube wells, bore wells shall be strictly regulated.
- xx. Adequate provision shall be made to cater the parking needs. Parking spaces standards as given in "Manual on Norms and Standards for Environmental Clearance of Large Construction Projects" issued by Ministry of Environment and Forests, Government of India shall be adopted.
- xxi. Rest room facilities shall be provided for service population.
- xxii. Water body falling within premises (if any) shall not be lined or no embankment shall be cemented. The water bodies, if any, shall be kept in natural conditions without disturbing the ecological habitat.
- xxiii. Construction shall conform to the requirements of local seismic regulations. The project proponent shall obtain permission for the plans and designs including structural design, standards and specifications of all construction work from concerned authority.

## II. Air quality monitoring and preservation

- i. 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.
- ii. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
- iii. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM25) covering upwind and downwind directions during the construction period.
- iv. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act,

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1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.

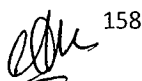
- v. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
- vi. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
- vii. Wet jet shall be provided for grinding and stone cutting.
- viii. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- ix. 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.
- x. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- xi. 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.
- xii. For indoor air quality the ventilation provisions as per National Building Code of India.

### III. Water quality monitoring and preservation

- i. 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.
- ii. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- iii. Total fresh water use shall not exceed the proposed requirement as provided in the project details.

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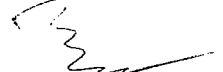
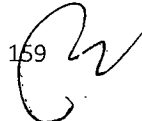
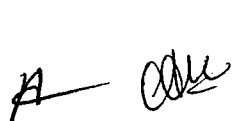
- iv. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- v. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
- vi. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- vii. 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.
- viii. 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.
- ix. 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.
- x. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- xi. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
- xii. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
- xiii. All recharge should be limited to shallow aquifer.
- xiv. No ground water shall be used during construction phase of the project.
- xv. 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.

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- xvi. 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 along with six monthly Monitoring reports.
- xvii. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.
- xviii. No sewage or untreated effluent water would be discharged through storm water drains.
- xix. Onsite sewage treatment of capacity of treating 100% waste water to be installed based on the MBBR/MBR/SBR technology. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.
- xx. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- xxi. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

#### IV. Noise monitoring and prevention

- i. Ambient noise levels shall conform to residential area/commercial area/industrial area/silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- ii. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- iii. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.



## V. Energy Conservation measures

- i. 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.
- ii. Outdoor and common area lighting shall be LED.
- iii. 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.
- iv. 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.
- v. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.
- vi. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

## VI. Waste Management

- i. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.
- ii. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- iii. 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.
- iv. Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
- v. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.



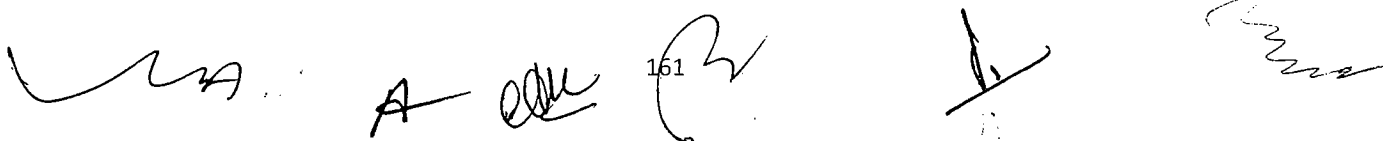
- vi. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- vii. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for 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.
- viii. 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 25<sup>th</sup> January, 20L.6., Ready mixed concrete must be used in building construction.
- ix. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
- x. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

#### VII. Green Cover

- i. No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).
- ii. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.
- iii. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.
- iv. 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.

#### VIII. Transport

- i. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.


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- a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
  - b. Traffic calming measures.
  - c. Proper design of entry and exit points.
  - d. Parking norms as per local regulation
- ii. 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.
  - iii. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

#### **IX. Human Health Issues**

- i. 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.
- ii. For indoor air quality the ventilation provisions as per National Building Code of India.
- iii. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- iv. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- v. Occupational health surveillance of the workers shall be done on a regular basis.
- vi. A First Aid Room shall be provided in the project both during construction and operations of the project.

#### **X. Corporate Environment Responsibility**

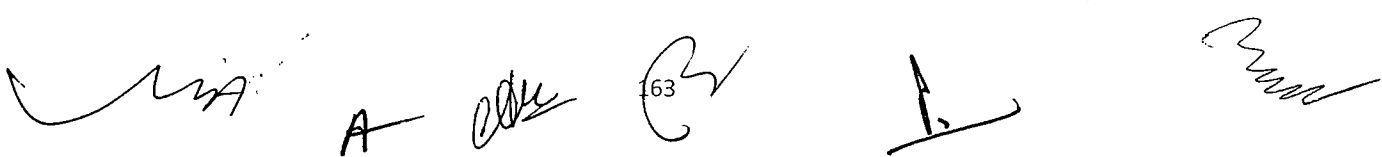
- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any

infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.


- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

#### **XI. Miscellaneous**

- i. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/SEIAA website where it is displayed.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- v. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vi. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- vii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

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- viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- x. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xi. The Ministry / SEIAA / SEAC may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry / SEIAA / SEAC reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. It shall be mandatory for the project management to submit six (06) monthly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard copies and soft copies to the regulatory authority concerned Regional Office of MoEF & CC at Ranchi and Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi / CPCB / SEIAA.
- xiv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.

  
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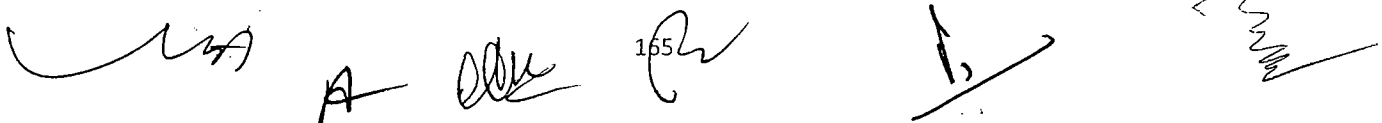


**I. Statutory compliance**

- 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. In the writ petition (Civil) no. 202/1995, T.N. Godaverman Thirumulpad vs union of India and ors. the Hon'ble Supreme Court passed an order dated 03.06.2022 " National Park or Wildlife Sanctuary must have an ESZ of minimum 01 km in which the activities prescribed and prescribed in the guidelines of 09th February, 2011 shall be strictly adhered to ".
- iii. The Project proponent complies with all the statutory requirements and judgement of Hon'ble Supreme Court dated 2<sup>nd</sup> 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.
- iv. The Hon'ble Supreme Court vide order dated 08.01.2020 in W.P. (Civil) No.114/2014 in the matter of Common Cause vs. Union of India has directed that the area which has been mined should be restored so that grass and other vegetation including trees can grow in the mining area for the benefit of animals.

*"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.*

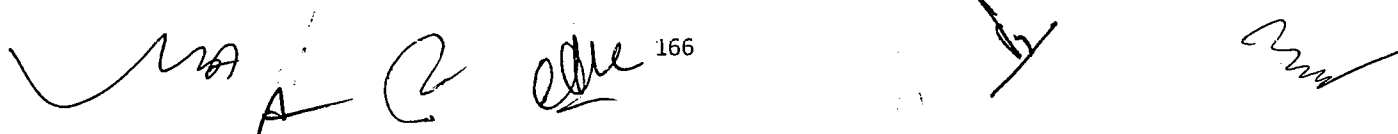
- v. The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgement of Hon'ble Supreme Court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

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- x. 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 there under in respect of lands which are not owned by it.
- xi. The Project Proponent shall follow the mitigation measures provided in MoEF&CC's Office Memorandum No. Z-11013/57/2014-IAJI (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 area".
- xii. 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.
- xiii. 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.
- xiv. State Pollution Control Board/Committee 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.
- xv. The Project Authorities should widely advertise about the grant of this EC letter by printing the same in 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/Committee and web site of the Ministry of Environment, Forest and Climate Change ([www.Environmentclearance.nic.in](http://www.Environmentclearance.nic.in)). A copy of the advertisement may be forwarded to the concerned MoEF & CC Regional Office for compliance and record.
- xvi. The Project Proponent shall inform the MoEF&CC 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. Air quality monitoring and preservation

- 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. PM10, PM2.5, NO2; CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCUI, 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

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carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all 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 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 well 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-à-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

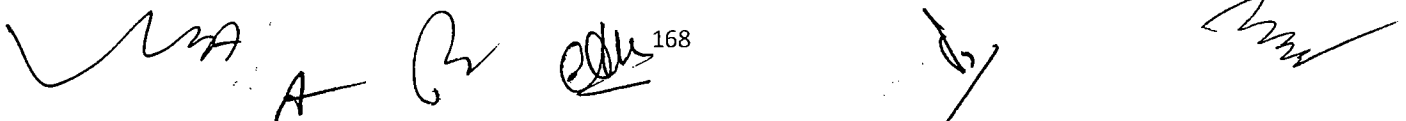


without justification and prior approval of MoEF&CC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.

- 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-IAJI (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.
- vi. Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area 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.
- vii. Industrial waste water (workshop and waste water from the mine) should be properly collected and treated 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.
- viii. 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/Committee.

#### IV. Noise and vibration monitoring and prevention

- 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 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 workers 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,

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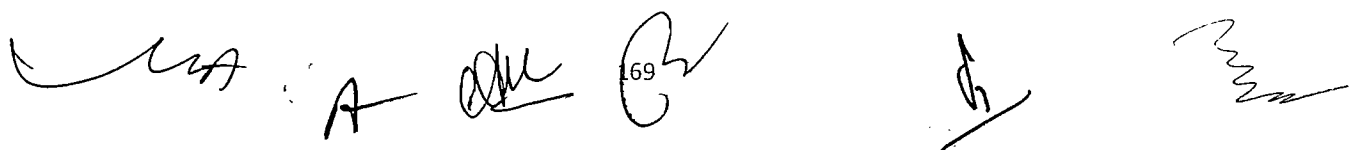
awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

#### 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-à-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.

#### 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 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

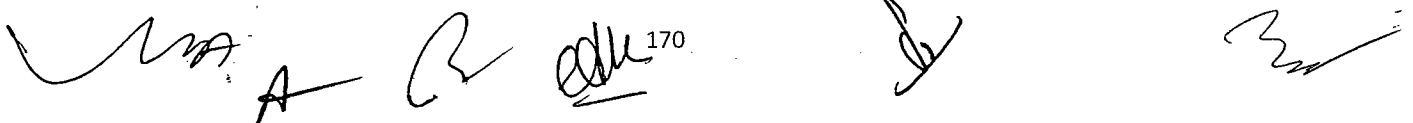
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per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.

- 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.
- vi. Catch drains, settling tanks and ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off 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 corners 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.

## VII. Transportation

- i. No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of 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

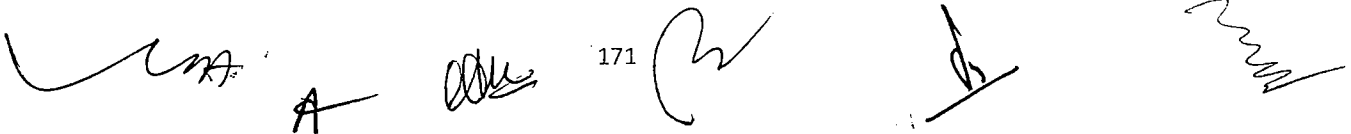
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roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment 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 sprinkling 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.

#### VIII. Green Belt

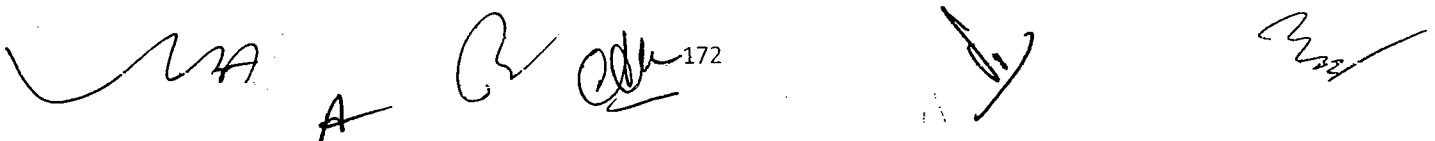
- i. The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward 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 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

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- 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. Public hearing and human health issues

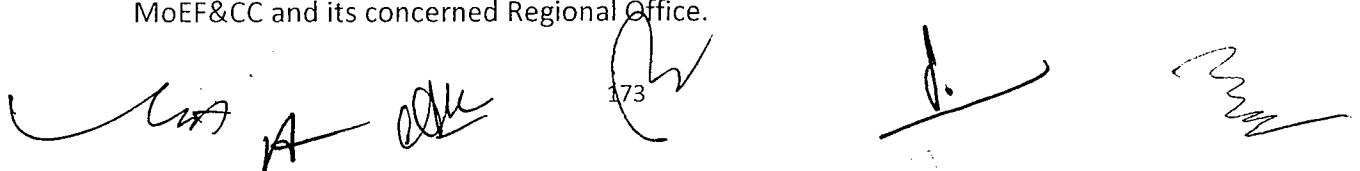
- i. The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups 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. 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 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.
- iii. 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

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- and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).
- iv. 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.
  - v. 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.
  - vi. 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, crèche 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.
  - vii. The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing 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.

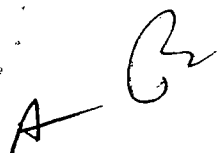
#### X. Corporate Environment Responsibility (CER)

- 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 EAC 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.

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## 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. It shall be mandatory for the project management to submit six (06) monthly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard copies and soft copies to the regulatory authority concerned Regional Office of MoEF & CC at Ranchi and Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi / CPCB / SEIAA.
- iv. 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.
- v. 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.
- vi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- vii. The Ministry / SEIAA / SEAC may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- viii. The Ministry / SEIAA / SEAC reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- ix. The Environmental Clearance accorded shall be valid for the period of lease of the mine, the PP does not increase production rate and alter lease area during the validity of Environmental Clearance.



The TORs prescribed for undertaking detailed EIA study are as follows:

**A. Standard Terms of Reference**

**1. Executive Summary**

**2. Introduction**

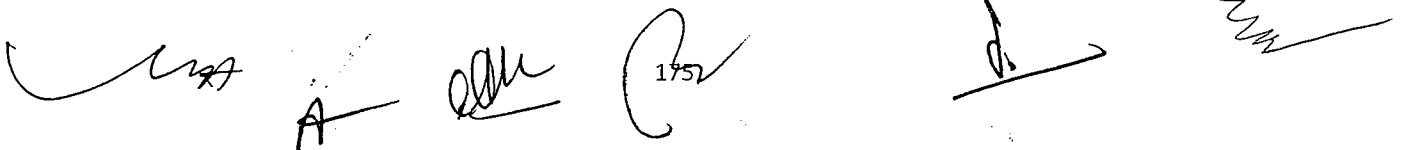
- i. Details of the EIA Consultant including NABET accreditation.
- ii. Information about the project proponent
- iii. Importance and benefits of the project

**3. Project Description**

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



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- ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
- iii. Details w.r.t. option analysis for selection of site
- iv. Co-ordinates (lat-long) of all four corners of the site. .
- v. Google map-Earth downloaded of the project site.
- vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- viii. Landuse break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
- ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
- x. Geological features and Geo-hydrological status of the study area shall be included.
- xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
- xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xiii. R&R details in respect of land in line with state Government policy

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

- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
- ii. Landuse map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (in case of projects involving forest land more than 40 ha)
- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-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.


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## 6. Environmental Status

- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with - min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule- I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- xi. Socio-economic status of the study area.

## 7. Impact and Environment Management Plan

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

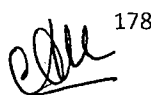
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control.
- vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

#### **8. Occupational health**

- i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.
- iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
- iv. Annual report of 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.

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- ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
  - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
  - iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report
10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

#### 11. Enterprise Social Commitment (ESC)

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

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

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

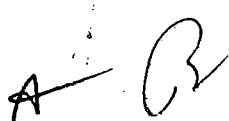
#### B. SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR METALLURGICAL INDUSTRIES (FERROUS & NON FERROUS)

1. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs & outputs (material and energy balance).
2. Details on blast furnace/ open hearth furnace/ basic oxygen furnace/ladle refining, casting and rolling plants etc.
3. Details on installation/activation of opacity meters with recording with proper calibration system
4. Details on toxic metals including mercury, arsenic and fluoride emissions
5. Details on stack height requirement for integrated steel
6. Details on ash disposal and management -Non-ferrous metal
7. Complete process flow diagram describing production of lead/zinc/copper/ aluminium, etc.
8. Raw materials substitution or elimination
9. Details on smelting, thermal refining, melting, slag fuming, and Waelz kiln operation
10. Details on Holding and de-gassing of molten metal from primary and secondary aluminum, materials pre-treatment, and from melting and smelting of secondary aluminium
11. Details on solvent recycling

12. Details on precious metals recovery
13. Details on composition, generation and utilization of waste/fuel gases from coke oven plant and their utilization.
14. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
15. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
16. Trace metals in waste material especially slag.
17. Plan for trace metal recovery
18. Trace metals in water

**C. Other**

1. Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of SEIAA, Jharkhand with reasons for such changes and permission should be sought, as the TOR may also have to be altered.
2. The prescribed TORs would be valid for a period of three years for submission of the EIA / EMP reports, as per the O.M. No. J-11015/109/2013-IA.II(M), dated 12.01.2017.



The TORs prescribed for undertaking detailed EIA study are as follows:

**A. Standard Conditions :**

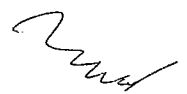
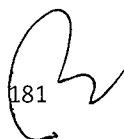
1. Examine base line environmental quality along with projected incremental load due to the project.
2. Environmental data to be considered in relation to the project development would be (a) land, (b) ground water, (c) surface water, (d) air, (e) bio-diversity, (f) noise and vibrations, (g) socio economic and health.
3. Submit a copy of the contour plan with slopes, drainage pattern of the site and surrounding areas. Any obstruction of the same by the project.
4. Submit the details of the tree felling for the project.
5. Submit the present land use and permission required / obtained for any conversion such as forest, agriculture land etc.
6. Submit Roles and responsibility of the developer etc for compliance of environmental regulations under the provisions of E (P) Act.
7. Ground water classification as per the Central Ground Water Authority.
8. Examine the details of Source of water, water requirement, use of treated waste water and prepare a water balance chart.
9. Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximize recycling of water and utilization of rain water.
10. Examine details of solid waste generation, treatment and disposal.
11. Examine and submit details of use of solar energy and alternative source of energy to reduce the fossil energy consumption and energy efficiency.
12. DG sets are likely to be used during construction and operational phase of the project. Emissions from DG sets must be taken into consideration while estimating the impacts on air environment. Examine and submit details.
13. Examine road / rail connectivity to the project site and impact on the traffic due to the proposed project. Present and future traffic and transport facilities for the region should be analysed with measures for preventing traffic congestion and providing faster trouble free system to reach different destinations in the city.
14. Examine the details of transport of materials for construction which should include source and availability.
15. Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.
16. Submit details of a comprehensive Disaster Management Plan including emergency evacuation and fire during natural and man-made disaster.



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17. Details of litigation pending or any notice received against the project, if any, with direction / order passed by any Court of Law against the Project should be given.
18. The cost of the Project (capital cost and recurring cost) the damage cost of already opened land as well as the cost to wards implementation of EMP should be clearly spelt out.
19. Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measures, project proponent can refer to the model ToR available on Ministry website "<http://moef.nic.in/Manual/Townships>".
20. Any other rules / guidelines / orders issued by any competent authority shall be applicable to the project at the time of consideration of the projects for grant of EC.

**B. Specific Conditions :**

1. The State Govt. / SPCB to take action against the project proponent under the provisions of section 19 of the Environment (Protection) Act, 1986.
2. The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the SEAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the SEAC and approval of the regulatory authority.
3. 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.
4. 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.
5. An assessment of the cumulative impact of all development and increased in habitation being carried out or proposed to be carried out by the project or other agencies in the core area, shall be made for traffic densities and parking capabilities in a 2 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA and the plan to be implemented to the satisfaction of all the concerned state departments and implementing agencies".
6. Management of solid waste and the Construction & Demolition waste for the project vis- a-vis the Solid Waste Management Rules, 2016 and the Construction & Demolition Rules, 2016.
7. Details of all construction input should be furnished for assessment of Ecological damage/Environmental damage.
8. 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.

9. Funds allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/ 2017-IA.III dated May, 2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report.
10. The prescribed TORs would be valid for a period of three years for submission of the EIA / EMP reports, as per the O.M. No. J-11015/109/2013-IA.II(M), dated 12.01.2017.



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