

MINUTES OF THE 101TH MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC), JHARKHAND HELD ON 20TH, 21ST, 22ND, 23RD and 24TH FEBRUARY, 2023.

The 101th meeting of State Level Expert Appraisal Committee (SEAC), Jharkhand was held on 20th, 21st, 22nd, 23rd and 24th February, 2023 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 09th, 10th, 11th, 12th, 13th and 14th January, 2023. 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 :-

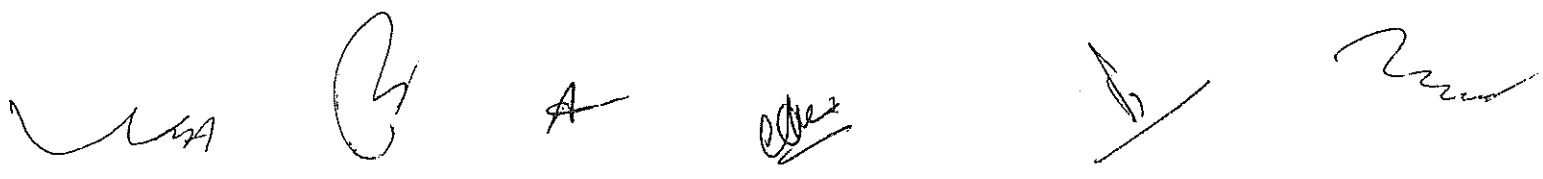
Day 1 : February 20th, 2023 [Monday]

A. Matter referred by SEIAA related to calculate / assess the amount of Remediation Plan, Natural and Community Resource Augmentation Plan in violation projects as per the latest guidelines of Central Pollution Control Board (CPCB) issued and uploaded in December, 2022 on CPCB website.

The matter was considered by SEAC and following points have been emerged during the discussion which is as follows :

- i. The Central Pollution Control Board has issued only framework in December, 2022. These are not guidelines.
- ii. The assessment of amount of Remediation Plan, Natural and Community Resource Augmentation Plan for violation projects have been done on the basis of guidelines issued by Central Pollution Control Board in 2019 based on "polluter pay principle" of Hon'ble Apex Court.

Hence, this Committee is of the view that the guidelines of CPCB issued in 2019 are still applicable until fresh guidelines are issued by MoEF&CC or CPCB for calculation of Remediation Plan, Natural and Community Resource Augmentation Plan for violation projects.



B. Consideration of Proposals

1. Proposed MLA Residential Complex in Core Capital Area of Special Works Division, Building Construction Department, Govt. of Jharkhand at Site – 1, HEC Area, Village : Ani, Tehsil : Nagri, District : Ranchi, Jharkhand.

(Proposal No. : SIA/JH/INFRA2/418801 /2023).

Name of the consultant : IND Tech House Consult, Delhi.

This is a new project which has been taken for reappraisal on 20.02.2023

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

Proposed MLA Residential Complex in Core Capital Area at Site-1, HEC Area, Ranchi. The total plot area of the project is 176078.723 m². The project site is earmarked as Housing development area as per the master plan of Ranchi 2037.

The Proposed project is located in Site-1, HEC Area, Ranchi. The total plot area of the project site is 179695.1547 m². The site is earmarked for Residential development as per the local development plan. The latitude and longitude of the centre of the project site are 23°19'24.65"N and 85°16'33.68"E respectively.

Salient Features of the Project :

Sl. No.	Description	Quantity	Unit
1	Plot Area	176078.723	m ²
2	Proposed Built Up Area	49853.500	m ²
3	No of blocks	70	
4	Max Height of Building (Upto Terrace)	14.1	m
5	Max No of Floors	G+2	Nos
6	Cost of Project	216	Cr
7	Expected Population (Including Floating and maintenance Staff)	639	No.
8	Permissible Ground Coverage Area (50%)	88039.36	m ²
9	Proposed Ground Coverage Area (17.24 %)	30355.97	m ²
10	Permissible FAR Area (3.0)	52823.61	m ²
11	Proposed FAR Area (0.28)	4930.20	m ²
12	Non FAR Area	44923.29	m ²
13	Total Water Requirement	119	KLD
14	Fresh water requirement	46	KLD
15	Treated Water Requirement	41	KLD
16	Waste water Generation	46	KLD
17	Proposed Capacity of STP	55	KLD
18	water for reused from onsite RWH Tanks	32	KLD
19	Treated Water Available for Reuse from onsite STP	41	KLD
20	Required Parking	250	ECS

21	Proposed Total Parking	480	ECS
22	Required Open/Green Area (20% of plot area)	35215.74	SQMT
23	Proposed Open/Green Area (31% of plot area)	54584.40	SQMT
	Green Buffer Area (6 % of the plot area)	10564.72	SQMT
	Incidental Green Area/ Green Cover (25 %)	44019.68	SQMT
24	Total Solid Waste Generation	0.28	TPD
25	Organic waste	0.11	TPD
26	Inorganic waste	0.17	LPD
27	Quantity of Sludge Generated from STP	3.5-4.0	KG/DAY
28	Total Power Requirement	2709	KVA
29	DG set backup	500	KVA
30	DG sets Proposed	500	KVA
31	No of DG Sets	1	No.
32	Proposed Roof Top SPV Power Generation	150	KWp

Land Details:

KHATA No.	Plot No.
52	39 P
14	41P
36	44P,176
6	45P,209,210,254,256,257,258,259,260P
13	46P, 47P,179
70	114P,177,220
27	175,201P,215,246,373,374P,382
38	178,180
45	181,183,195P,207P,208P,253
46	182,184P,187P
47	185,186
16	192P,214,304P,305P,306,307P,302
18	193P
23	211,212P,218,250,251,252
69	213,296
80	216,301,309
82	217
36	219
4	222,223P,240P,243,244
67	242P
50	245
10	261,262P,291P,292,293,294P,295P,298,303
41	284,285P,297,299,300
40	308P,375P
35	310P,311P
42	372P
	247,248,249,255

Adjacent Features of the Project Site

S. No.	Surrounding Feature	Distance from Project Site	Direction w.r.t. Project Site
1.	Vidhan Sabha	290 Meter	W
2.	Indra Nagar	60 Meter	E
3.	Sail City	630 Meter	N
4.	Paras HEC Hospital	630 Meter	S

Communication Facilities with the Project Site

S. No.	Type of Facility	Name of Facility	Distance from Project Site	Direction w.r.t. Project Site
1.	Roads	• NH-39	2.64 KM	W
		• NH-75	3.12 KM	E
		• SH-23	4.78 KM	NW
		• Jagannathpur Mandir Road	246 Meter	S
2.	Railway	• Hatia - Railway Station	4.42 KM	SE
		• <u>Ranchi Junction</u>	6.55 KM	NE
		• Piska Railway Station	6.95 KM	W
		• Balasiring Railway Station	5.71 Km	S
3.	Airport	• Birsa Munda Airport	3.20 KM	E

Project Site and Surrounding Area within 500 m Features & Facilities in the Surrounding Area

SN	Type of Facility	Name of Nearest Facility	Distance & Direction from Project Site
1.	Hospital	Paras Hec Hospital, Ranchi	630 M in S direction
		Summer Hospital & Research Centre	4.22 Km in SE direction
		City Hospital	3.94 Km in NE direction
		Raj hospital	5.77 Km in NE direction
		St. Barnabas Hospital	6.71 Km in NE direction
		Doranda Hospital	4.43 Km in NE direction
2.	School	Yogoda Satsanga Mahavidyalaya, Gosaidih	276 M in SE direction
		Kendriya Vidyalaya CRPF Camp	1.5 Km in SW direction
		Prabhat Tara School	916 M in S direction

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		St Thomas School, Dhurwa	1.17 km in SE direction
		Saraswati Shishu Vidya Mandir	1.55 km in S direction
		Government Primary School	3.42 km in S direction
		Indian Institute Of Management–Ranchi (IIM–Ranchi)	2.61km in NW direction
		Dayanand Public School	2.51 km in NE direction
		Kendriya Vidyalaya HEC	2.10 km in E direction
		DAV Jawahar Vidhya Mandir	3.69 km in NE direction
		Delhi Public School,Sail Township	2.59 km in NE direction
		St. Xaviers School, Doranda	4.33 km in NE direction
		St. Mary Nursery School, Doranda	4.34 in NE direction
3.	Community Facilities	GALA Banquet & Conference - Banquet hall	2.26 Km in E
		Vidhan Sabha Colony Ground	885 Meter in E
		Shaheed Vijay Soreng Park	1.96 KM in E
		Dhurwa Dam	2.74 Km in SW
		Park Golf course	13.18 Km in NE
		Sai Dhurwa Cricket Academy	1.81 Km in SE
4.	Places of worship	Hanuman Mandir	190 Meter in S
		Jagannath Mandir	562 Meter in SE
		Sai Mandir is situated at an aerial distance of	730 Meter in N
		Jagannath Masi Rath Yathra Temple	1.16 km in E
		Durga Mandir, Dhurwa	2.50 km in S direction
		Lord Hanuman And Lord Shiva Temple.	1 km in NE direction
5.	Defence installations	Army western cantoment	14.6 km in NE direction
6.	Archaeological site		
7.	State/National boundaries	Jharkhand -West Bengal Border	56 km in E direction

Details of Parking Facilities

Level of Parking	No. of Car Parking (ECS)	
	Proposed	Required
Total parking	480	250

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Power Requirement, Source and Backup Arrangement

Power requirement	2709 KVA
Sources of power	JBVNL (Jharkhand Bijli Vitran Nigam Limited) Grid supply
Back-up power supply arrangement	Back-up DG sets of total capacity 500 kVA (Also roof top SPV power generation 150 KWP is proposed.
Stack height of DG	6 m above the terrace level of the building

Water Requirement, Source and Water Balance

Water Requirement during Operation Stage

WATER REQUIREMENT				
	POPULATION/ AREA/UNIT	RATE IN LTS	TOTAL QTY IN KL	BASIS
RESIDENTIAL				
DOMESTIC	490	76	~37	Manual on norms and standards for environment clearance of large construction projects , Ministry of Environment and Forests, Government of India
FLUSHING	490	24	~12	
NON RESIDENTIAL (Working)				
DOMESTIC	100	25	2.50	As Per NBC 2016, Clause 4.1.2
FLUSHING	100	20	2.00	As Per NBC 2016, Clause 4.1.2
VISITORS				
DOMESTIC	49	5	0.25	As Per NBC 2016, Clause 4.1.2
FLUSHING	49	10	0.49	As Per NBC 2016, Clause 4.1.2
TOTAL POPULATION	639			
Swimming POOL			5	
GARDENING	56767.78	1	58	
DG COOLING	500	0.25	0.5	
TOTAL WATER REQUIREMENT			119	

Water Source during Operation Stage

SN	Source	Quantity (kld)
1	Fresh water from municipal supply	46
2	Recycle of treated water from onsite STP	41
3	Rain Water Tanks	32
	Total water source	119

Green Area and Number of Trees

Plot area for development: 176078.723 m²

Green Buffer Area : 10564.72 m² (6 % of the plot area)

Incidental Green Area/ Green Cover : 44019.68 m² (25 %)

Total Green Area: 54584.40 m² (31 % of the plot area)

No. of tree plantation required (1 tree per 80 m ² of plot area for development) = 176078.723 m ² plot area / 80 m ² per tree =	2200.98
No. of tree plantation proposed	2256

Sewage Quantity, Treatment, Reuse & Disposal

Quantity of sewage	46 kld
Collection of sewage	Sewage generated during the operation phase will be collected through underground sewerage system (pipe drain) for treatment in STP. Separate storm water drainage system will be provided for rain water.
Treatment of sewage	Sewage will be treated up to the tertiary level in the on-site Sewage Treatment Plant (55 kld capacity) based on MBBR technology. All parameters of the STP treated effluent shall be maintained as per EP Rules, 1986/ CPCB standards.
Reuse/recycle and Disposal of treated sewage	During normal operations, the treated sewage will be reused and recycled for horticulture and toilet flushing.
Location of the STP	Within project site

Rain Water Harvesting

There will be total 6 nos rain water harvesting pits .

All the pits will be preceded by a storage tank for re-use.

Solid Wastes Collection, Recycle & Disposal

Quantity	Total 0.28 (Biodegradable 0.11 TPD + Non-biodegradable: 0.17 TPD)
Nature	Biodegradable: Waste vegetables and foods Non-biodegradable: Papers, cartons, thermocol, plastics, glass etc.

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Collection and disposal	The municipal solid wastes generated from the project will be segregated into biodegradable waste, non-biodegradable waste, plastic waste, domestic hazardous waste and horticulture waste in separate bins as per Solid Waste Management Rules, 2016. The biodegradable wastes will be composted in on-site composting unit and the manure will be used for landscaping. The other segregated wastes will be disposed at Nagar Nigam designated site through authorized vendors as per local norms. Dewatered/ dried sludge from STP will be used as manure in horticulture.
Recycling	Recyclable wastes comprising paper, plastic, glass etc., will be disposed at Nagar Nigam designated site through to authorized vendors.
STP Sludge	This will be used as manure in Land scaping

Energy Conservation Measures

- Proposed building envelope is efficiently designed having very less exposed area in West / South-West / North-West direction. Energy efficient glass has been considered to minimize the heat load in the building. Proposed U factor & Solar Factor shall be as per NBC/ ECBC 2017 (as applicable). Additionally Efficient Lighting System - combination of LED Light fixture is proposed for Entire building and campus lighting which will significantly reduce the lighting load requirement in the project. Additionally 150 KWp solar panel to be installed at over the parking area. Total 150 KWp electrical powers to be generated through solar system

In future the project proponent assures that additional 200 kwp of solar panels will be installed making the total solar capacity as 350 kwp

Environmental Management Plan

Proposed Environmental Mitigation Measures

Area	Mitigation Measures
	Construction Stage:
Water quality	<ul style="list-style-type: none"> Toilet and drinking water facilities for construction workers will be provided by the contractor at the construction site to avoid unhygienic condition at site. Mobile Toilets will be used.
Air quality	<ul style="list-style-type: none"> Barricades of sufficient height all along the project boundary will be erected to prevent dispersion of dust and noise Regular sprinkling of water on roads and vulnerable areas of the construction site will be carried out for dust suppression. Properly tuned construction machinery & vehicles in good working condition with low noise & emission will be used and engines will be turned off when not in use. DG sets to comply with emission norms & stack height regulations. Construction materials will be properly stored at the storage yard with

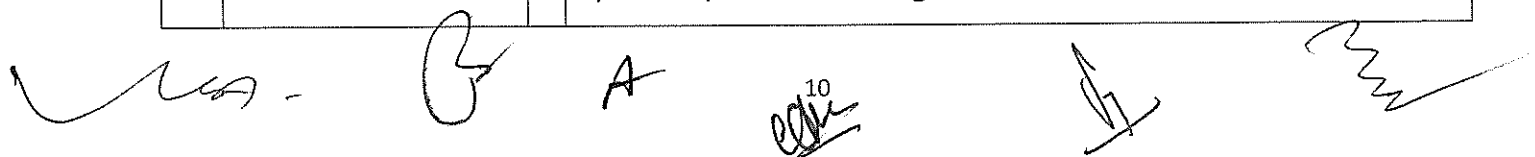
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	<p>proper shades and covers located at the off-site.</p> <ul style="list-style-type: none"> • Trucks carrying construction materials and debris will be suitably covered by tarpaulin and plastic sheets. • Use of mask by construction workers.
Noise level	<ul style="list-style-type: none"> • Enclosed/ canopy type DG sets will be used. • Protective gears such as ear mufflers etc. will be provided to construction personnel exposed to high noise levels.
Solid wastes	<ul style="list-style-type: none"> • Construction wastes will be recycled and excess construction debris will be disposed at designated places in tune with the local norms. • Municipal solid wastes from construction site will be disposed at Nagar Nigam authority designated dumping site through authorized vendors.
Landscape	<ul style="list-style-type: none"> • Appropriate landscape including plantation of evergreen and ornamental flowering trees, palms, shrubs and ground covers at open spaces within the complex will be done, which would serve the dual purpose of controlling fugitive dust and improving the aesthetics of the area.
Health & Safety	<ul style="list-style-type: none"> • Personal protective equipments (PPE) and other safety measures will be provided to the construction workers as per occupational safety norms to prevent accidents/ hazards. • First aid and health checkup facility will be provided at the construction site.
	Operation Stage:
Water quality	<ul style="list-style-type: none"> • Sewage will be treated up to the tertiary level in the on-site STP. • Sewage will be reused for toilet flushing and horticulture. • Regular monitoring of STP Outlet quality will be carried out as per norms.
Air quality	<ul style="list-style-type: none"> • Back up DG sets will comply the applicable emission norms. • Adequate stack height for DG sets will be provided as per norms. • Back up DG sets will be used only during power failure. • Regular monitoring of emissions from DG sets and ambient air quality will be carried out as per norms.
Noise level	<ul style="list-style-type: none"> • DG sets will be installed in the basement to minimize the vibration and impact on ambient noise. • DG room will be treated acoustically as per norms to control the noise from DG sets. • Pumps, Compressors, DG sets etc. will be properly maintained for fuel efficiency and noise control. • Personal protective equipment will be provided to the maintenance staff working in high noise areas.
Solid wastes	<ul style="list-style-type: none"> • Solid wastes will be segregated into biodegradable & non-biodegradable components. • Biodegradable wastes will be composted in an on-site composting unit and the manure will be used for landscaping. • Non-biodegradable/ recyclable wastes will be disposed at designated dumping site through authorized vendors.

Hazardous waste	<ul style="list-style-type: none"> • Used/spent oil from DG sets will be temporarily stored in an isolated area with proper marking & restriction and finally sold to registered recyclers as per HW rules.
Rainwater harvesting	<ul style="list-style-type: none"> • For rain water harvesting surface and roof rain water will be harvested using a combination of RWH pit and existing natural drain/nullah
Fire protection	<ul style="list-style-type: none"> • Adequate fire protection facilities will be installed including fire detectors, fire alarm and fire fighting system as per National Building Code of India. • Fire fighting training & mock drills will be conducted at regular intervals as per norms and safety manual
Landscape	<ul style="list-style-type: none"> • Proper maintenance of landscape round the year including replacement of the decayed plants.
Health & Safety	<ul style="list-style-type: none"> • Adequate safety measures will be provided to the maintenance staff complying to the occupational safety manuals to prevent accidents/hazards. • First aid and health checkup facility will be provided at the building.
Others	<ul style="list-style-type: none"> • The building will be provided with disabled-friendly design, timber-free construction, energy efficient lighting & ventilation, and control of indoor environment. • Undertaking all necessary pollution control measures to maintain the emissions and discharges within the prescribed/stipulated limits.

Statutory Clearances :

1	DFO Certificate	:	Divisional Forest Officer (DFO), Ranchi Forest Division vide letter no. 467, dated 07.02.2023 certified that distance of Reserved Forest/Protected Forest is more than 250 meters from project site.
2	DFO wildlife	:	DFO, Wildlife Ranchi vide letter no. 17, dated 05.01.2023 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
3	CO certificate	:	The CO, Nagri (Ranchi) vide letter no. 130 (ii), dated 28.01.2023 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyon & Register II.
4	AAI NOC	:	PAAs has submitted the NOC application vide NOC ID RAN/ EAST/ B/021123/741424 for Height Clearance.


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5	Fire Department	:	PAs has submitted the application vide letter dated 09.02.2023 for Fire Advisory.
6	Building Plan	:	Conceptual Plan submitted.

Based on the presentation made and information provided, the Committee decided that the proposal for Proposed MLA Residential Complex in Core Capital Area of Special Works Division, Building Construction Department, Govt. of Jharkhand at Site – 1, HEC Area, Village : Ani, Tehsil : Nagri, District : Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I 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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2. Enhancement of MS Billet production from 28800 TPA to 118800 TPA through 3x12 T Induction Furnaces (by existing 1x12 T Furnace & installing additional 2x12 T Furnaces along with CCM – 1x2 Strand, Rad – 4/7), Slag Crusher from 3600 TPA to 30000 TPA capacity and production of 117600 TPA TMT Bars & Rolled Products by installing Rolling Mill of 1x20TPH Capacity by M/s Shresth Steel & Energy LLP at Plot no. 57/C, Barhi Industrial Area, Village : Konra, P.S. : Barhi, Distt. : Hazaribagh, Jharkhand.

(Proposal no. : SIA/JH/IND1/412624/2023)

Name of the consultant : Vardan Environet, Haryana

This is an expansion project which has been taken for appraisal on 20.02.2023.

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.

M/s Shresth Steel & Energy LLP is located at Plot No. 57/C, Barhi Industrial Area, Village – Konra, Barhi, Hazaribagh, Jharkhand on the total area of 2.181Ha (5.39Acres).

Company started with production of 28,800 TPA M.S. Ingot/Billet along with Slag Crusher of 3600 TPA (recovered Slag Metal – 360 TPA) capacity after obtaining the Consent to Establish (CTE) vide letter No. JSPCB/HO/RNC/CTE-8967996/2020/420, dated 7th December, 2020 and Consent to Operate (CTO) vide ref No. JSPCB/HO/RNC/CTO-10492679/2021/927, dated 31st August, 2021 for the period upto 30th June 2022 and current CTO vide ref No. JSPCB/HO/RNC/CTO-13085630/2022/846, dated 15.06.2022 valid upto 30th June, 2024.

Company has now proposed to obtain Environmental Clearance for the Enhancement of MS Billet production from 28800TPA to 118800TPA through 3x12T Induction Furnaces (by existing 1x12T Furnace & installing additional 2x12T Furnaces along with CCM-1x2strand, Rad- 4/7m), Slag Crusher from 3600 TPA to 30000 TPA capacity and production of 117600TPA TMT Bars & Rolled Products by installing Rolling Mill of 1x20TPH Capacity

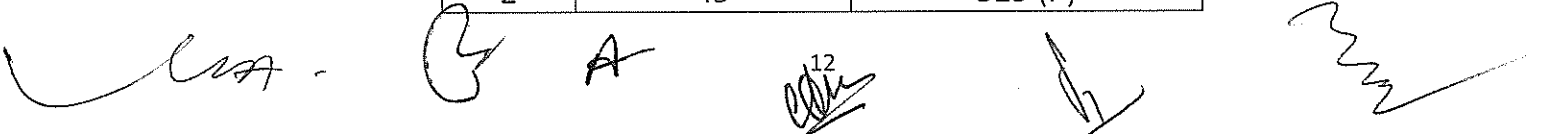
Proposed expansion shall be done within the existing plant area of 2.186 ha (5.39 Acres). No additional land is required. No forestland is involved. Out of the total area, ha (35%) will be developed as green belt.

Hazaribagh Wildlife Sanctuary ESZ is located at a distance of 7.8 Km from the project site.

Estimated cost for the proposed expansion is Rs. 60.00 Crores. Total Project Cost is estimated as Rs. 76.2128 Crores including cost of existing plant as Rs. 16.2128 Crores. Employment generation after proposed project will be 250 direct employments and approx. 200 indirect employments.

Land Details :

Sl. No.	Khata No.	Plot No.
1	29	563 (P)
2	49	529 (P)



3	68	527 (P)
4	34	526 (P)
5	03	525 (P)
6	78	564 (P)

Latitude & Longitude of the project :

Latitude	Longitude
24°18'35.97"N to 24°18'41.41"N	85°25'29.90"E to 85°25'39.10"E

The Raw material for the plant would be procured from local and other state markets depending upon the quality. The raw material and product transportation will be done through NH-2 (Grand Trunk Road) at 50 m & NH-33 (connecting Ranchi-Patna) at 1.22 Km away from the project site. The capacity of different existing and proposed units is as follows:

Sl. No	Plant Facilities	Existing Configuration	Proposed Expansion Configuration	Final Production Capacity (TPA)
1.	Induction Furnace	28800 TPA (1x12T)	90000 TPA (2x12T)	MS Billets (3x12T) 118800 TPA 330 working days
	Continuous Casting Machine	--	1 x 2 strand Rad - 4/7	
2.	Rolling Mill (Direct Hot Charging)	--	117600 TPA (1x20 TPH)	Roll Products (TMT Bars & Rolled Products/Rods etc.) 117600 TPA
3.	Slag Crusher	3600 TPA (Recovered Slag metal – 360 TPA)	26400 TPA (Recovered Slag metal – 2640 TPA)	Crushed Slag 30000 TPA (Recovered Slag metal – 3000 TPA max)

Total requirement of power for the after the proposed expansion will be 13.4 MW. Power requirement will be sourced from Damodar Valley Corporation (DVC). Two DG set of 320 KVA will be installed along with the existing 1x200 KVA for meeting emergency requirements of the plant.

Total Raw material requirement after the proposed expansion of plant is given below:

Units	Solid Wastes	Qty In TPA	Disposal Practice
Induction Furnace	Slag	26,800	In-house metal recovery in slag crusher (approx. 3000 TPA) and non-metal dust supplied outside for further reuse in construction work.

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CCM	End cuts & Scales	810	Recycled in-house along with scrap in the induction furnace.
Bag Filter Dust from process	Dust from process	130	Partly recycled (metal content). Rest supplied outside for further reuse in construction work and Low land filling
Rolling Mill	End cuttings & Mill Scale	1200	Recycled in-house along with scrap in the induction furnace.

The total water requirement after the expansion will be 184 KLD out of which Fresh Make up water is 172.6KLD. Water requirement will be met from Groundwater through Borewells after getting permission from the concerned authorities, application has been made for the same. Zero Liquid Discharge 'ZLD' shall be maintained.

The proponent has mentioned that there is no court case or violation under EIA Notification to the project or related activity.

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	Lease Deed.
2	CO	:	The CO, Barhi (Hazaribagh) vide letter no. 1129, dated 25.11.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 1808, dated 12.09.2022 certified that the proposed project site is outside Eco Sensitive Zone of Hazaribagh Wildlife Sanctuary.
4	DFO Forest Distance	:	DFO, Hazaribagh West vide letter no. 3242, dated 09.09.2022 certified that the distance of reserved / protected forest is more than 250 meters from project site.
5	Consent to Establish (CTE)	:	CTE issued by JSPCB vide Ref. no. JSPCB/HO/RNC/CTE-8967996 /2020/420, dated 07.12.2020.
5	Consent to Operate (CTO)	:	CTO granted by JSPCB vide : i. Ref. no. JSPCB/HO/RNC/CTO-10492679/2021/927, dated 31.08.2021. ii. Ref. no. JSPCB/HO/RNC/CTO-13085630/2022/846, dated 15.06.2022.

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 20, 21,

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22, 23 & 24.02.2023, the Committee recommends for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure II.

3. Surrender of Environmental Clearance of 50 TPD Existing Cement Grinding Unit by M/s Shree Kathu Shyamji Cement Mfg. (P) Ltd. at Plot no. C-28, Kandra Industrial Area, Village : Govindpur, Distt. : Dhanbad, Jharkhand.

(Proposal no.: SIA/JH/IND1/418029/2023)

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

M/s Shree Khathu Shyamji Cement Mfg. (P) Ltd. has made an application online along with the application in prescribed format and copy of Dismantling Plan. The proposed project activity is listed at Sl. No. 3 (b) under category 'B2' of the schedule of the EIA Notification, 2006.

The unit of Cement Grinding Unit was granted CTE by JSPCB vide Ref No. N-48, dated 24.12.2008 and Environmental Clearance (EC) vide F. No. J-11011/392/2009-IA II (I), dated 29.09.2010 from MoEF&CC, New Delhi for a capacity of 50 TPD Cement Grinding (Portland Slag Cement). The unit obtained first CTO from JSPCB vide memo no. PCB/Con/DHN/277/14/D-2160(C), dated 16.07.2014 and unit was in operation since then till 2020 as per the last CTO granted by JSPCB vide Ref. No. JSPCB/HO/RNC/CTO-5208520/2019/988 Dated: 15.05.2019, valid up to 30.06.2020. Copy of EC, CTE & both CTOs are attached at end of the report as Annexure - 1, 2, 3 & 4 respectively. The dismantling of the unit will be taken up after surrender of the EC.

Project Location:

Type of Land	Notified Industrial Land
Coordinates	Lat.: 23°50'37" N, Long.: 86°29'33" E
Nearest town	Dhanbad
Nearest Railway Station	Dhanbad Junction, 8.68 km SSW
Nearest State Highway/ National highway	NH-33 is about 7.51 km in N Jamshedpur Keonjhar Highway is about 2.08 km in W
Nearest airport	Kazi Nazrul Islam Airport, Durgapur – 80 km NE
Nearest River/Canal	Khudia Nadi 2 km N Jauria Nala 4 km N
Forests in the Vicinity	Dhangi RF 2.4 km S Topchachi RF 12.8 km W
Wildlife Sanctuary/National Park	None
Seismic zone	Zone II as per Seismic Map of India

The plant to be dismantled – Cement Grinding unit as such does not pose any major hazard w.r.t contamination and dismantling work as the type of unit does not involve any chemical reaction or

use of any hazardous chemicals or steam boilers. The unit was operating on totally dry process and materials stored under shed.

The costs associated with decommissioning are generally related to the disposal and recycling of equipment and the use of external resources to implement the Decommissioning/dismantling Plan.

Cement Grinding Unit equipment available at site are as below:

Sl. No.	Name of the Machinery	Quantity
1	Cement Ball Mill	1 No.
2	Cement Mill Hopper & Table Feeder	2 Nos.
3	Cement Storage Silo	1 No.
4	Conveyor	2 Nos.
5	Gear Box	4 Nos.
6	Bucket Elevator	1 No.
7	Root Blower	1 No.
8	Air Bag Filter with all Fittings	1 No.
9	Air Compressor	1 No.
10	Packing Machine (Automatic)	1 No.
11	Welding Machine/Gas Cutter	1 No.
12	Transformers	1 Nos.
13	Electrical Panels	2 Nos.
14	Pneumatic line/Conveyor	1 No.
15	Working Shed	1 No.
16	Building	1 No.

All the equipment of Sl. No. 2 to 6, 8 and 13 to 15 including the working shed will be dismantled/cut and disposed, equipment of Sl. No. 1, 7, 10 & 12 will be sold as 2nd hand machinery to other manufacturers, while equipment at Sl. No. 9 & 11 along with the existing building will be retained for re-use in the new product manufacturing unit.

Summary of waste generation & disposal:

Material	Approx. Quantity	Disposal
Metal (mild steel/iron)	60 – 65 tons	Supplied to scrap dealers for reuse in foundries
Concrete debris (including Brickbats)	10-12 tons	Provided to local authorities as per C&D rules 2016
Rubber, wood, filter cloth etc.	2.0-2.5 tons	Supplied to scrap dealers for reuse in other activities
Residual Cement	0.45–0.60 tons	Supplied to local traders for sale

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Waste/Used oil	50-55 litres	Provided to registered recyclers
Oil-soaked jute/cloth	0.18 tons	

Impact checklist for dismantling:

Environmental Parameters	Land	Water	Air	Noise	Solid Waste	Remarks
Activities						
Demolition	P	-	T	T	T	Permanent change in land use pattern envisaged.
Dismantling	P	-	T	T	T	
Site Clearing	P	-	T	T	T	
Mechanical Works	P	-	T	T	T	
Material Storage	T	-	T	T	T	
Material Handling	-	-	T	T	-	
Transportation	T	-	T	T	-	
Water Requirement	-	T	-	-	-	
Temporary Construction	T		T	T	T	
Spill/ Leakage	T	-	-	-	T	
Fugitive emissions	-	-	T	-	-	

Action plan for controlling fugitive emissions:

Action Plan	Activity/Equipment	Proposed Action
For fugitive emission control	Demolition & dismantling	Water sprinkling, barricading, covering of demolition waste.
	Storage of dismantling/ demolition wastes	Water sprinkling, covered shed
	Vehicular movement	Transportation to be done in covered vehicles
	Reduction of surface fugitive dust	Water sprinklers along the internal roads and, raw material yard and product storage yard will be installed.
	Occupational health & safety	Use of PPEs.

The proponent has mentioned that there is no court case to the project or related activity.

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Unit has submitted self certified compliance report of previous EC conditions. Plant is not in operation. It will also not be operated in future. It is proposed to be dismantled.

During the presentation the Committee referred to the OM F. no. IA3-22/10/2022-IA.III(E177258), dated 29.03.2022 of MoEF&CC, Govt. of India regarding Surrender of EC. Specific direction has been given that Surrender of EC shall be allowed by MoEF&CC / SEIAA based on certified closure report of IROs.

The Committee is of the view that this proposal will be considered after the compliances are made as required under OM F. no. IA3-22/10/2022-IA.III(E177258), dated 29.03.2022 of MoEF&CC, Govt. of India.

Day 2 : February 21st, 2023 [Tuesday]

Consideration of Proposals

1. Group Housing Building Project of M/s Shanti Hari Realty Pvt. Ltd., Village : Pundag, Distt.: Ranchi, Jharkhand.

(Proposal No. : SIA/JH/INFRA2/408944/2022).

Name of the consultant : Geo-green Enviro House Pvt. Ltd.

This is a new project which has been taken for reappraisal on 21.02.2023.

The Group Housing Building Project is to be developed by M/s Shanti Hari Realty Pvt. Ltd. The project site is located at Village Pundag, District Ranchi, Jharkhand on a land measuring 1.64 acres. The geographical co-ordinates of project site are 23°21'17.5" N and 85°15'18.1" E.

The company is successful in providing specifically designed affordable housing solutions to the customers keeping in mind their daily needs.

Detailed Area Statement

S. No.	Particulars	Total (Area in sqm)
1.	Total Plot Area	6,672.66
2.	Permissible Ground Coverage (@35% of plot area)	2,335.43
3.	Proposed Ground Coverage (@33.48 % of plot area)	2,234.03
4.	Permissible FAR	21,018.88
	• Permissible FAR (@3 of the plot area)	20,017.98
	• IGBC (05% of the permissible FAR)	1,000.90

5.	Proposed FAR	20,982.6
9.	Non-FAR	9,974.95
10.	Built up Area	30,957.55
11.	Landscape Area (21.08% of plot area)	1,400
12.	Height of building	28.5 m
13.	Project cost	Rs 41.5 Crores
14.	RWH pits	05

LAND DETAILS :

Khata No.	Plot No.
91	115
336	112

➤ **WATER REQUIREMENT**

During operation phase, the source of water supply will be Ranchi Municipal Corporation. The total water requirement is approx. 131 KLD, out of which total domestic water requirement is 125 KLD. The fresh water requirement is approx. 83 KLD.

➤ **POWER REQUIREMENT**

The power supply shall be supplied by State Electricity Board. The maximum load demand for the Group Housing Project will be approx. 1651 KW.

Details of D.G Sets

There is provision of 2 no. of DG sets of total capacity 400 kVA approx (2x200 kVA) for power back up in the Group Housing Project. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion.

➤ **CONNECTIVITY**

The nearest highway is NH-43 which is 2.1 km (West) away from project site. The nearest railway station being Argora Railway Station is about 6.2 km (ESE) away from the project site. The nearest Birsa Munda Airport, Ranchi at 6.5 km (SE) from project site.

Calculations for Daily Water Demand

S. No.	Description	No. of DUs/Area (m ²)	Occupancy	Rate of water demand (lpcd)		Total Water Requirement (KLD)		
				Fresh	Flushing	Fresh	Flushing	Total
A.	Domestic Water							
	• Residents	180	900	90	45	81	40.5	121.5
	• Staff		45	25	20	1.125	0.9	2.025

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	• Visitors		90	10	5	0.9	0.45	0.5
Total						83.025 say 83	41.85 say 42	124.87 5 say 125
Total Domestic Water = 125 KLD								
B.	Horticulture	1,400 m ²			4 L/sqm	5.6 KLD say 6 KLD		
Grand Total (A+B) = 131 KLD								

Waste Water Calculations

Total Domestic Water Requirement	125 KLD
• Fresh water	83 KLD
• Flushing water	42 KLD
Waste water Generated (80% of Fresh Water + 100% of Flushing Water)	66.4 + 42 = 108 4 Say 108 KLD
STP capacity	120 KLD

Population Break-up

S. No.	Description	DUs/FAR (sqm)	PPU	Total Population
1.	Residential	180	5	900
	Maintenance Staff	5% of residential population		45
	Visitors	10 % of residential population		90
Grand Total Population				1,035

DETAILS OF SOLID WASTE

The total estimated MSW from site is 490 Kgs and estimated organic waste is 196 Kg/Day (which is 40% of total MSW). The project has provided 220 kg Organic waste convertor at site.

STATUTORY CLEARANCES :

1	DFO Forest Distance	DFO, Ranchi Forest division vide letter no. 2720, dated 27.06.2022 certified that the distance of reserved / protected forest is more
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			than 250 m from proposed project site.
2	DFO wildlife	:	DFO, Wildlife Ranchi vide letter no. 545, dated 10.06.2022 certified that the proposed project site is outside of Eco Sensitive Zone of Palkot Wildlife Sanctuary.
3	CO certificate	:	The CO, Nagri vide letter no. 05, dated 17.02.2022 & letter no. 06, dated 17.02.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in Khatiyani.
4	AAI NOC	:	Airport authority of India issued NOC vide NOC ID RANC/EAST/B/101720/503293, dated 04.12.2020.
5	Fire Department	:	A fire advisory has been issued by Fire Department, Jharkhad, Ranchi vide memo no. 3972/Tech./2021, dated 10.12.2021.
6	Building Plan	:	Conceptual Plan submitted.

Earlier this proposal was presented in SEAC on 09 - 14.01.2023 in which requisite documents were sought are under –

- a. The water balance diagram has not been provided with quantification of the usage of STP treated water.
- b. There was no justification for the quantity of water to be utilized during construction phase.
- c. Stack emission details were provided arbitrarily. The consultant could not explain the basis or source of data provided.
- d. Test reports were provided for AAQ, Ground Water, Surface Water, Noise Quality and Soil Quality. The Ground Water quality test report stated that the water sample was collected for the project site on 01st November, 2022. However, during the course of presentation it was revealed that there is no existence of any tube well / dug well on the project site. Hence it was obviously taken the test report submitted is false and baseless. The surface water sample was collected from Potato Nadi as mentioned in the test report submitted. It is seen that there is no existence of Potato Nadi and hence this report was also taken to be false and baseless.
- e. The credibility of all the test reports submitted have now become doubtful.
- f. The fresh samples to be taken for testing should be done after prior intimation to SEIAA/SEAC.
- g. No justification was provided or could be explained regarding the quantity and nature of MSW generation & disposal during the operation of the project.

The Project Authorities have submitted the above mentioned documents.

Based on the presentation made and information provided, the Committee decided that the proposal for Group Housing Building Project of M/s Shanti Hari Realty Pvt. Ltd., Village : Pundag,

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

- I. Minimum one row of tall and broad leaf trees to be planted all along project boundary besides other requirement on green cover / belt.
- 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 points to be installed.

2. Kunhara Kalan Stone Deposit of M/s Saroj Stone (Partners : Sri Sanjay Kumar & Sri Minhaj Alam), Village : Kunhara Kalan, Thana : Barkatta, Distt. : Hazaribagh, Jharkhand (0.919 Ha).

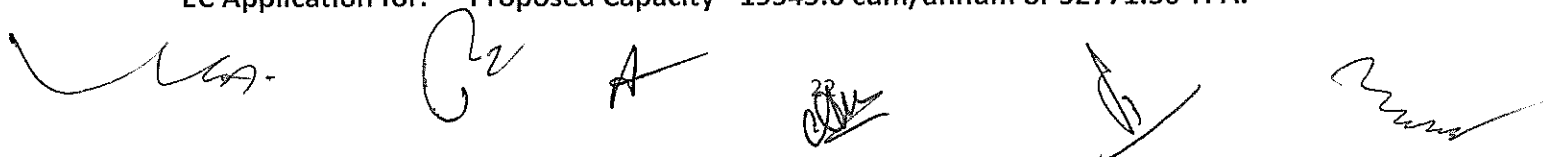
(Proposal No. SIA/JH/MIN/416686 /2023).

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

This is a new project which has been taken for appraisal on 21.02.2023.

Project Category: B1– Terms of Reference.

EC Application for: Proposed Capacity - 19545.0 cum/annum or 52771.50 TPA.



		SE direction of mine site. Protected Forest near Tilaia Pachrukhi, Approx 3.50 km towards West direction of mine site.
21	Road & Highways	: NH-19 , Approx. 1.05 km, North East direction

CO-ORDINATES

1	Latitude	From 24°10'10.2"N	To 24°10'15.5"N
2	Longitude	From 85°35'02.7"E	To 85°35'06.2"E

Land Details :

Khata No	Plot No
46	940
04	942
19	926, 929
16	933
63	928, 932
55	491

Statutory Clearances :

1	LOI/Lease docs	: The Letter of Intent (LoI) has been issued by District Mining Officer, Hazaribagh vide memo no. 195/Khanan, dated 24.02.2022.
2	CO	: The CO, Barkatha, Hazaribagh vide letter no. : 718/Ra, dated 19.10.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in Khatiyani.
3	DMO	: DMO, Hazaribagh vide memo no. 1335/Khanan, dated 18.10.2022 certified that 03 other mining lease area (4.50 acre, 3.145 acre & 4.00 acre) exists within 500 m radius from proposed project site.
4	DFO Wild Life	: DFO, Wildlife Hazaribagh vide letter no. : 1971, dated 14.11.2021 certified that the proposed project site is outside Eco Sensitive Zone of Hazaribagh Wildlife Sanctuary.
5	DFO Forest Distance	: DFO, Hazaribagh West Division vide letter no. : 2674, dated 02.08.2021 certified that the distance of Notified / Demarcated forest is 260 m from proposed project site.
6	DSR	: The DC, Hazaribagh vide letter no. 1273/Khanan, dated 28.09.2022 has informed that this project is part of District Survey Report (DSR) of Hazaribagh district and accordingly necessary action with regard

		:	to Environmental Clearance can be taken.
7	Gram Sabha	:	Gram Sabha conducted on 07.08.2021.
8	Mine Plan Approval	:	Additional Director, Geology, Hazaribag vide letter no. 92/G, dated 28.03.2022.

Working Details

1	Mining Method	:	Opencast other than fully mechanized (OTFM) Mining method	
2	Quarry Area	:	0.919 ha	Life of Mine – 4.99 ~ 5.0 years
3	Waste Generation	:	3130 cu.m	8451 tons
4	Stripping Ratio	:	1: 0.03	
5	Working Days	:	300	
6	Benches: size & No	:	6m x not less than 10m	
7	Elevation of Mine	:	380 AMSL to 382 AMSL	
8	Ground Level Elevation	:	382 AMSL	
9	Ultimate Working Depth	:	362 AMSL (18mbgl)	
10	Water Table	:	355 AMSL (25mbgl)	
11	Topography of Mine	:	Area represents a small hillock	
12	Explosive Requirement	:	8 Kg/day	
13	Diesel/Fuel requirement	:	80 litre/day	

Production Details

Year	Production of stone (Tonnes)	Production of stone (Cum)	Waste Generation (CuM)	Bench RL in Meters
1 st	52744.50	19535.00	1220.00	374mRL - 380mRL
2 nd	52731.00	19530.00	500.00	368mRL - 374mRL
3 rd	52717.50	19525.00	850.00	368mRL - 374mRL
4 th	52650.00	19500.00	-	362mRL - 374mRL
5 th	52771.50	19545.00	560.00	362mRL - 368mRL
Total	263614.50	97635.00	3130.0	

Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Excavation	-	0.534	0.534 ha
Road	-	-	-
Waste Dump	-	-	-
Infrastructure	-	-	-
Safety Zone (Plantation)	-	0.385 (Within Safety Zone)	0.385 (Within Safety Zone)
Total	-	0.919	0.919
Balance Area	0.919	-	-
Lease Hold Area	0.919	0.919	0.919

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.077 ha	965
2	Haul /Approach Road	:	0.280 km	280

- 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 3130.0 cum or 8451.0 tons during the plan period which 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 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.

The PAs and the consultants have requested that common EIA for this project alongwith Kunhara Kalan Stone Deposit of M/s Hill View Mining (Prop. : Sri Nilesh Ranjan) Village :

9	Mineable Reserves	:	Cu.m.: 473000 cum	Tonnes: 1277100 tons
10	Mine Life	:	10.0 years	
11	Man power	:	20	
12	Water Requirement	:	8.335 ~ 8.50 KLD(Drinking: 0.20 KLD, Dust Suppression: 5.095 KLD, Plantation: 3.04 KLD)	
13	Water Source	:	From Nearby villages by tankers	
14	DG Set / power	:	60 KVA	
15	Crusher	:	Nil	
16	Nearest Water Body	:	Pond near Tilaia Pachrukhi, at approx. 2.60 km towards W direction of mine site. Barsoti Nadi, at approx. 1.77 km towards NNE direction of mine site. Baradbohi Nadi, at approx. 0.50 km towards N direction of mine site. Barhoiya Nadi, at approx. 1.0 km towards S direction of mine site.	
17	Nearest Habitation	:	Kunhara Kalan, 0.40 km	
18	Nearest Rail Station	:	Sarmatanr Railway station, approx. 20.50 km in NE direction	
19	Nearest Air Port	:	Birsa Munda Airport, approx. 98.20 km towards SSW direction.	
20	Nearest Forest	:	Protected Forest Open Scrub , Approx. 3.90 km towards N direction. Open jungle , Approx. 4.50 km towards NE direction of mine site. Fairly Densed Mixed Jungle , Approx 0.50 km towards SW direction.	
21	Road & Highways	:	NH-19 , Approx. 0.90 km, North East direction	

CO-ORDINATES

1	Latitude		From 24°10'06.77"N	To 24°10'13.18"N
2	Longitude		From 85°35'09.27"E	To 85°35'15.73"E

LAND DETAILS :

Khata No.	Plot No.
14	1020
18	1021
36	1026
45	1018
38	974 (P) & 1032
46	990 (P), 994 (P), 1023 & 1029
41	1033
35	977
17	1014
26	1015 & 1017

15	985 (P), 992 (P) & 1027
39	1025 & 1030
24	978
32	1019
65	987 (P) & 988 (P)
48	993 (P)
44	1022
27	975
54	984 (P) & 1028
08	986 (P) & 991 (P)
28	976

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Hazaribagh vide memo no. 382/Khanan, dated 08.04.2022.
2	CO	:	The CO, Barkatha (Hazaribagh) vide letter no. : 177, dated 24.03.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Hazaribagh vide memo no. 1336/Khanan, dated 18.10.2022 certified that 03 other mining lease area (4.50 acre, 3.145 acre & 4.00 acre) exists within 500 m radius from proposed project site and total area is 11.645 acre.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. : 440, dated 07.03.2022 certified that the proposed project site is outside Eco Sensitive Zone of Hazaribagh Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Hazaribagh West Division vide letter no. : 3059, dated 01.09.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC, Hazaribagh vide letter no. 1317/Khanan, dated 13.10.2022 has informed that this project is part of District Survey Report (DSR) of Hazaribagh district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	Gram Sabha conducted on 06.10.2021.
8	Mine Plan Approval	:	Additional Director, Geology, Hazaribagh vide letter no. G/2022-23-388, dated 30.10.2022.

Working Details

1	Mining Method	:	Opencast other than fully mechanized (OTFM) Mining method	
2	Quarry Area	:	5 years – 1.70 ha	Life of Mine – 10.0 years
3	Waste Generation	:	5 years– 3500 cu.m	
4	Stripping Ratio	:	1: 0.05	
5	Working Days	:	300	
6	Benches: size & No	:	6m x 6m	
7	Elevation of Mine	:	388 AMSL to 390 AMSL	
8	Ground Level Elevation	:	390 AMSL	
9	Ultimate Working Depth	:	360 AMSL	
10	Water Table	:	350 AMSL (15mbgl)	
11	Topography of Mine	:	Undulating topography.	
12	Explosive Requirement	:	8 kg/day	
13	Diesel/Fuel requirement	:	70 litre/day	

Production Details

Year	Production of stone (Tonnes)	Production of stone (Cum)	Waste Generation (CuM)	Bench RL in Meters
1 st	117450.00	43500.00	3500	390mRL - 384mRL
2 nd	120150.00	44500.00	-	384mRL - 378mRL
3 rd	124200.00	46000.00	-	382mRL - 378mRL
4 th	127710.00	47300.00	-	378mRL - 372mRL
5 th	127710.00	47300.00	-	378mRL - 372mRL
Total	617220.00	228600.00	3500	

Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Quarry	0.968	1.293	1.293 ha
Road	0.026	Comes under qry	-
Safety Zone (Plantation)	-	0.407 (Within Safety Zone)	0.407 (Within Safety Zone)
Total	0.994	1.70	1.70
Balance Area	0.706	-	-

Lease Hold Area	1.70	1.70	1.70
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ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.407 ha	1010
2	Haul /Approach Road	:	0.51 km	510

- 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 3500.0 cum tons during the plan period which 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 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 is required permission should be taken from competent authority.

The PAs and the consultants have requested that common EIA for this project alongwith Kunhara Kalan Stone Deposit of M/s Saroj Stone (Partners : Sri Sanjay Kumar & Sri Minhaj Alam), Village : Kunhara Kalan, Thana : Barkatta, Distt. : Hazaribagh, Jharkhand (0.919 Ha). (Proposal No. SIA/JH/MIN/416686 /2023) and the baseline data generation period will be from December, 2022 to February, 2023.

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 20, 21, 22, 23 & 24.02.2023, the Committee recommends 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 for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure III.

4. Sonapose & Databera Stone Block of M/s NNB Engineers Pvt. Ltd., Village : Sonapose & Databera, Block : Potka, Distt. : East Singhbhum, Jharkhand (7.40 Ha).

(Proposal No. : SIA/JH/MIN/ 408057 /2023).

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

This is a new project which has been taken for appraisal on 21.02.2023.

Project Category : B1 – Application for Terms of Reference

TOR Application for : Proposed Capacity- 99987.50 cu.m/annum or 249968.80 TPA

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) Mining of minerals as per EIA Notification, 2006.

Project and Location Details :

Sl	Parameter	Details	
1	Project Name	: Sonapose & Databera Stone Block	
2	Lessee:	: M/S NNB ENGINEERS PVT. LTD., Director - Sri Naveen Singh	
3	Lease Address	: M/S NNB ENGINEERS PVT. LTD., Director - Sri Naveen Singh R/O 1st Floor, Holiday Inn Plaza, Adityapur, Jamshedpur, Jharkhand	
4	Lease Area	: 7.40 ha	Acres- 18.29 Acres
5	Type of Land	: Non Forest – Raiyati Land	
6	Project Cost	: Rs. 60 Lakhs	
7	EMP Budget	: Capital: 13.21 Lakhs	Recurring: 3.27 Lakh / year
8	CSR / CER Budget	: Rs. 1.20 Lakhs	
9	New or Expansion	: New	
10	Mineable	: cum.: 1633390.88 cum	Tonnes: 4083477.20 tons

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	Reserves		
11	Mine Life	:	16.33 years
12	Man power	:	25
13	Water Requirement	:	17.26 ~ 18.0 KLD(Drinking: 0.22 KLD, Dust Suppression: 4.78 KLD, Plantation: 12.26 KLD)
14	Water Source	:	From Nearby villages by tankers
15	DG Set / power	:	50 KVA
16	Crusher	:	Yes
17	Nearest Water Body	:	Jharadih River Approx. 2.10 km towards East direction of mine site.
18	Nearest Habitation	:	Sonapose, at 350 meters
19	Nearest Rail Station	:	Haldipokhar Railway station, approx. 4.60 km towards NE direction.
20	Nearest Airport	:	Birsa Munda Airport, approx. 110.90 km towards NW direction.
21	Nearest Forest	:	Open Scrub Jungle Approx. 3.75 km towards SW direction of mine site
22	Road & Highways	:	NH- 220, Approx. 2.10 km. in SE direction.

CO-ORDINATES

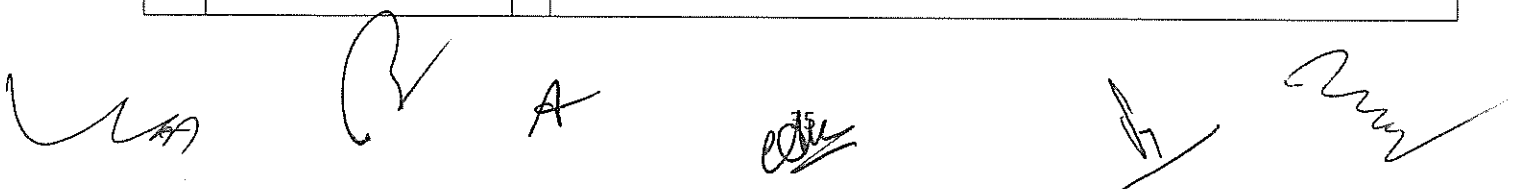
1	Latitude	From 22°34'54.10" N	To 22°35'8.94" N
2	Longitude	From 86°06'8.48" E	To 86°06'29.12" E

LAND DETAILS :

Khata No.	Plot No.
60	1, 9, 22
125	484

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by Director of Mines, Deptt. of Mines & Geology, Govt. of Jharkhand vide Letter no. Kha.Ni (Nilami)-66/2022-1949M/Ranchi, dated 14.09.2022.
2	CO	:	The CO, Potka, East Singhbhum vide letter no. 27, dated 11.01.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar & Register II.
3	DMO	:	DMO. East Singhbhum, Jamshedpur vide letter no. 111/Khanan, dated 02.02.2023 certified that the no other mining area exists within 500 m radius from proposed project.



4	DFO Wild Life	:	DFO, Dalma Elephant Project Under Sonapose village vide letter no. 1543, dated 22.10.2022 and Under Databera village vide letter no. 1544, dated 22.10.2022 certified that the proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary. The additional comments given by the DFO, Dalma Elephant Project is not appropriate.
5	DFO Forest Distance	:	DFO, Jamshedpur Forest Division under Sonapose village vide letter no. 2624, dated 01.11.2022 and under Databera village vide letter no. 2625 dated 01.11.2022 certified that the distance of reserved / protected forest is more than 250 m from the project site.
6	DSR	:	This is an existing project which is already mentioned in page no. 27 of District Survey Report (DSR) of District East Singhbhum.
7	Gram Sabha	:	BDO, Potka vide letter no. 82, dated 12.01.2023 informed that Gram Sabha conducted on 10.01.2023.
8	Mine Plan Approval	:	Additional Director, Geology, Hazaribag vide memo no. 295/G dated 14.10.2022.

Working Details

1	Mining Method	:	Opencast other than fully mechanized (OTFM) method.
2	Quarry Area	:	7.40 ha. or 18.29 Acres
			Life of Mine – 16.33 Years
3	Waste Generation	:	22088.00 cum
4	Stripping Ratio	:	1: 0.02
5	Working Days	:	300
6	Bench: size & No	:	6m to 6m
7	Elevation of Mine	:	205 AMSL to 250 AMSL
8	Ground Level Elevation	:	250 AMSL
9	Ultimate Working Depth	:	191 AMSL (14 mbgl)
10	Water Table	:	185 AMSL (20 mbgl)
11	Topography of Mine	:	Area represents a flat topography.
12	Explosive Requirement	:	8 kg/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 st	40014.00	100035.00	2106.00	239mRL - 221mRL

2 nd	80797.50	201993.75	4252.50	229mRL - 203mRL
3 rd	98990.00	247475.00	5210.00	209mRL - 197mRL
4 th	99883.00	249707.50	5257.00	203mRL - 197mRL
5 th	99987.50	249968.80	5262.50	203mRL - 191mRL
Total	419672.00	1049180.05	22088.00	

Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Excavation	3.67	4.90	5.98
Waste Dump	---	0.200	---
Road	0.183	0.153	---
Infrastructure (Proposed Crusher)	---	0.150	---
Safety Zone Plantation	---	0.50 (Within Safety Zone)	1.42 (Within Safety Zone)
Total	3.853	5.903	7.40
Balanced Area	3.547	1.497	---
Total Applied Area	7.40	7.40	7.40

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.52 ha	1250
2	Along Approach Road	0.38 km	380
3	Other	-	4500

- 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 22088.00 cum waste during the plan period will be generated. Part of the waste shall be utilized for maintenances of the village road and making of approach road, haul road etc. and part of the waste shall be temporary dump in the western side of the applied area.

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.
- 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.



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- 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 is required permission should be taken from competent authority.

The baseline data generation period will be from 1st March, 2023 to 31st May, 2023.

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 20, 21, 22, 23 & 24.02.2023, the Committee recommends 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 for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure III.

- 5. Pipaljori Stone Deposit of M/s Lakhmani Stone Product, Village : Pipaljori, P.S. : Pakur, Distt. : Pakur, Jharkhand (0.84 Ha).

(Proposal No. SIA/JH/MIN/ 416771 /2023).

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

This is a new project which has been taken for appraisal on 21.02.2023.

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) Mining of minerals as per EIA Notification, 2006.

Project Category : B1– Terms of Reference

EC Application for : Proposed Capacity – 29500 cum/annum or 73750.00 TPA

Project and Location Details :

Sl	Parameter	Details
1	Project Name	: Pipaljori Stone Deposit

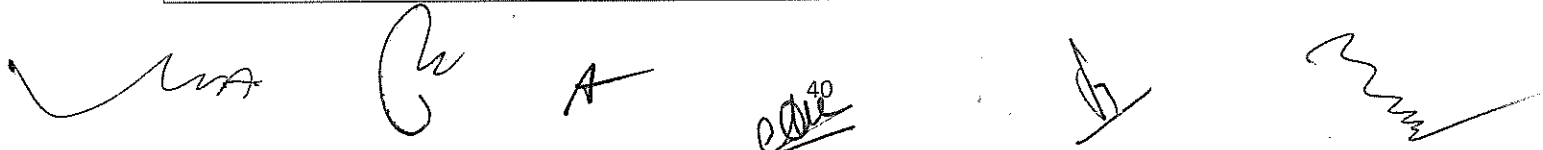
2	Lessee:	:	M/S Lakhmani Stone Product (Partner- Sri Ritin Lakhmani, Sri Devaanand Lakhmani, Shri Gopi Chand Lakhmani, Shri Jaikishan Lakhmani, Shri Ravish Lakhmani) AT + P.O.- Sindhipara, P.S. – Pakur, District - Pakur, Jharkhand
3	Lease Address	:	Village – Pipaljori, P.S.- Pakur, District – Pakur, Jharkhand
4	Lease Area	:	0. 84 ha Acres- 2.08 Acres
5	Type of Land	:	Non Forest – Raiyati Land
6	Project Cost	:	Rs. 20 Lakhs
7	EMP Budget	:	Capital: 6,16,500 Lakhs Recurring: 3,27,000 Lakh / year
8	New or Expansion	:	New
9	Mineable Reserves	:	Cu.m.: 29500 cum Tonnes: 73750.00 tons
10	Mine Life	:	4.90 ~ 5.0 years
11	Man power	:	20
12	Water Requirement	:	11.58 ~ 11.60 KLD(Drinking: 0.20 KLD, Dust Suppression: 7.59 KLD, Plantation: 3.79 KLD)
13	Water Source	:	From Nearby villages by tankers
14	DG Set / power	:	60 KVA
15	Crusher	:	Nil
16	Nearest Water Body	:	Torai Nadi - Approx. 7.72 km towards N direction of mine site. Bansloi Nadi Approx. 9.33 km towards SE direction.
17	Nearest Habitation	:	Pipaljori, 0.50 km
18	Nearest Rail Station	:	Nagarnabi Train station, approx. 2.85 km toward E direction.
19	Nearest Air Port	:	Birsa Munda Airport, approx. 292.0 km towards SW direction.
20	Nearest Forest	:	Protected Forest near Bara Mahulan Village, Approx. 4.80 km towards W direction of mine site. Protected Forest near Mohanpur Village, Approx. 2.10 km towards SW direction of mine site.
21	Road & Highways	:	NH-133A, NH-133A, Approx. 5.45 km. in N direction.

CO-ORDINATES

1	Latitude	From 24°35'19.11"N	To 24°35'23.46"N
2	Longitude	From 87°50'19.48"E	To 87°50'26.60"E

LAND DETAILS

Khata no.	Plot no.
12	586 (P), 588 (P), 589, 590 & 591 (P)
30	587



STATUTORY CLEARANCES

1	LOI/Lease docs	:	The LOI has been issued by District Mining Office, Pakur vide letter no. 1101/M, dated 09.07.2021.
2	CO	:	The CO, Pakur vide letter no. 1738/Ra, dated 11.11.2020 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Pakur vide memo no. 1495/M, dated 26.08.2020 certified that 05 other lease area (11.78 acre, 37.25 acre, 11.96 acre, 11.80 acre & 10.75 acre) exists within 500 m radius from proposed project and total area is 85.62 acre or 34.65 ha.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 481, dated 08.08.2021 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Pakur Forest Division vide letter no. 794 dated 19.05.2021 distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC-cum-District Magistrate, Pakur vide letter no 1412/M dated 12.08.2021 has informed that this project is part of District Survey Report (DSR) of Pakur district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Pakur vide letter no. 2746/Vi, dated 13.11.2020 informed that Gram Sabha conducted on 28.10.2020.
8	Mine Plan Approval	:	District Mining Office, Pakur vide memo no. 1699/M, dated 24.09.2021

Working Details

1	Mining Method	:	Opencast other than fully mechanized (OTFM) Mining method
2	Quarry Area	:	5 years – 0.84 ha
			Life of Mine – 4.90 ~ 5.0 years
3	Waste Generation	:	5 years– 910 cu.m or 2275 tons
4	Stripping Ratio	:	1: 0.03
5	Working Days	:	300
6	Bench: size & No	:	6m x 6 m
7	Elevation of Mine	:	24 AMSL to 25 AMSL
8	Ground Level Elevation	:	24 AMSL
9	Ultimate Working	:	11 AMSL

	Depth		
10	Water Table	:	5 AMSL (10mbgl)
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 (Tonnes)	Production of stone (Cum)	Waste Generation (CuM)	Bench RL in Meters
1 st	57500.0	23000.0	730	25 mRL – 23 mRL
2 nd	60750.0	24300.0	-	25 mRL – 23 mRL
3 rd	65000.0	26000.0	-	23 mRL – 17 mRL
4 th	73750.0	29500.0	-	17 mRL – 11 mRL
5 th	73750.0	29500.0	180	24 mRL – 17 mRL
Total	330750.0	132300.0	910	

Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Quarry	-	0.456	0.456ha
Road	0.22	0.006	0.006
Waste Dump	-	-	-
Infrastructure	-	-	-
Safety Zone Plantation	-	0.378	0.378
Total	-	0.84	0.84
Balance Area	0.818	-	-
Lease Hold Area	0.84	0.84	0.84

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.378 ha	945

2	Haul /Approach Road	:	0.95 km	950
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Year	Safety Zone Area (in Hectare)/No. of Plants	Plantation along both sides of Approach road	Location
1 st Year	0.378/945	950	Approach road –950 nos – along both sides of approach road at spacing of 2 m.
2 nd year	Care / Protection of Plants		
3 rd year			
4 th year			
5 th Year			
Total	945	950	
Total no. of plants	1895		

- 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 910 cum or 2275 tons during the plan period which 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 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, 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 is required permission should be taken from competent authority.








The baseline data generation period will be from 1st March, 2023 to 31st May, 2023.

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 20, 21, 22, 23 & 24.02.2023, the Committee recommends 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 for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure III.

6. Tirildih Stone Block of M/s Kiran Construction & Infrastructure Pvt. Ltd. (Prop. : Sri Sukhvinder Singh), Village : Tirildih, Block : Potka, Distt. : East Singhbhum, Jharkhand (4.27 Ha).

(Proposal No.SIA/JH/MIN/416251 /2023).

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

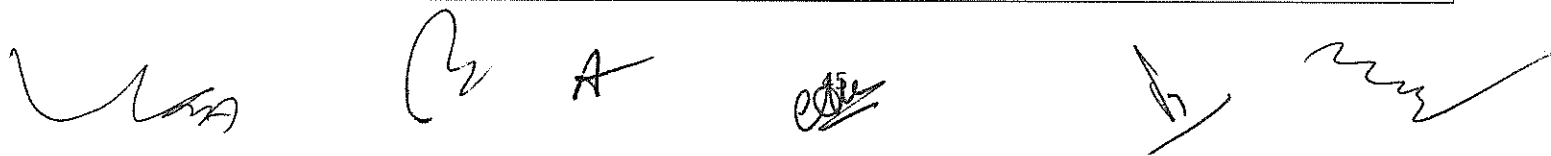
This is a new project which has been taken for appraisal on 21.02.2023.

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 6159 cum/annum or 15397.5 TPA

Project and Location Details:

Sl	Parameter	Details
1	Project Name	: Tirildih Stone Block
2	Lessee:	: M/S. Kiran Construction & Infrastructure Pvt. Ltd (Proprietor - Sri Sukhvinder Singh)
3	Lease Address	: Near Bhagat Singh Statue, Jamco Bus Stand, P.O + P.S - Telco, Jamshedpur, District - East Singhbhum, Jharkhand
4	Lease Area	: 4.27 ha. Acres- 10.55 Acre
5	Type of Land	: Non Forest – Raiyati Land
6	Project Cost	: Rs. 70 Lakhs
7	EMP Budget	: Capital: 9.55 Lakhs Recurring: 3.27 Lakh / year
8	CSR / CER Budget	: Rs. 1.40 Lakhs
9	New or Expansion	: New
10	Mineable Reserves	: 107782.0 tons
11	Mine Life	: 7 years
12	Man power	: 23
13	Water Requirement	: 16.43 ~ 17.0 KLD (Drinking: 0.23 KLD, Dust Suppression: 8.90 KLD, Plantation: 7.30 KLD)
14	Water Source	: From Nearby villages by tankers
15	DG Set / power	: 50 KVA
16	Crusher	: The stone boulders produced from this mine shall be crushed in



			Lessee own crusher which shall be installed outside the lease area.
17	Nearest Water Body	:	Garra River- Approx. 5.10 km towards SE direction of mine site. Chandi River- Approx. 5.20 km towards SE direction of mine site.
18	Nearest Habitation	:	Haldipokhar, Approx. 7.50 km towards SW direction.
19	Nearest Railway Station	:	Haldipokhar Railway station, approx. 7.33 km towards SSW direction.
20	Nearest Air Port	:	Birsa Munda Airport, approx. 111.60 km towards NW direction.
21	Nearest Forest	:	Dholadih Protected Forest- Approx. 3.80 km towards ENE direction of mine site. Morcha Protected Forest- Approx. 4.90 km towards ENE direction of mine site. Kudada Reserve Forest- Approx. 3.60 km towards N direction of mine site. Protected Forest near village Bhunridih- Approx. 4.10 km towards NE direction of mine site.
22	Road & Highways	:	SH- 6, Approx. 0.90 km. in SE direction.

CO-ORDINATES

1	Latitude		From 22°39'47.5" N	To 22°39'53.7" N
2	Longitude		From 86°09'52.3" E	To 86°10'05.6" E

LAND DETAILS :

Khata No.	Plot No.
233	1226 (P)

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by Director of Mines, Deptt. of Mines & Geology, Govt. of Jharkhand vide letter no. Kha.Ni (Nilami)-71/2022/2038, dated 23.09.2022.
2	CO	:	The CO, Potka, East Singhbhum vide letter no. : 808, dated 17.12.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyan & Register II.
3	DMO	:	DMO, East Singhbhum, Jamshedpur vide letter no. 988/Khanan, dated 07.12.2022 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Dalma Elephant Project vide letter no. : 1711, dated

			28.11.2022 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. : 2656, dated 03.11.2022 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. 28 of District Survey Report (DSR) of District East Singhbhum.
7	Gram Sabha	:	Gram Sabha conducted on 08.01.2023.
8	Mine Plan Approval	:	Additional Director, Geology, Hazaribag vide letter no. G/2022-23-379, dated 30.10.2022.

Working Details

1	Mining Method	:	Opencast Semi- mechanized method
2	Quarry Area	:	4.27 ha. or 10.55 Acre
3	Waste Generation	:	Nil
4	Stripping Ratio	:	1:50.00
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	192 AMSL to 166 AMSL
8	Ground Level Elevation	:	192 AMSL
9	Ultimate Working Depth	:	142 AMSL
10	Water Table	:	130 AMSL (20 mbgl)
11	Topography of Mine	:	Area represents almost flat land with rock mass of dolerite topography
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 st	6159	15397.5	172mRL - 160mRL
2 nd	6159	15397.5	172mRL - 160mRL
3 rd	6159	15397.5	160mRL - 154mRL
4 th	6159	15397.5	154mRL - 148mRL

5 th	6159	15397.5	148mRL - 142mRL
Total	30795	76987.5	

Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Excavation	3.12	3.12	3.57
Greenbelt within Safety Barrier	--	0.70	0.70
Road	--	--	--
Crusher	--	0.08	--
Total	3.12	3.90	4.27
Balanced Unused Area	1.15	0.37	--
Total Applied Area	4.27	4.27	4.27

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.700 ha	1750
2	Along Approach Road	0.900 m	900

Year	Area for Greenbelt in Hectare/saplings	Plantation along both sides of Approach road	No. of plants in buffer zone consulting local authorities	Location
1 st Year	0.700 ha/1750 plants	900	1000	Approach road –900 nos – along both sides of approach road at spacing of 2 m. 1000 nos. In village area like School premises, Aangawadi, Panchayat Bhavan and other places
2 nd Year	Care / Protection of Plants			
3 rd Year				
4 th Year				
5 th Year				
Total	1750	900	1000	
Total	3650			

- 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

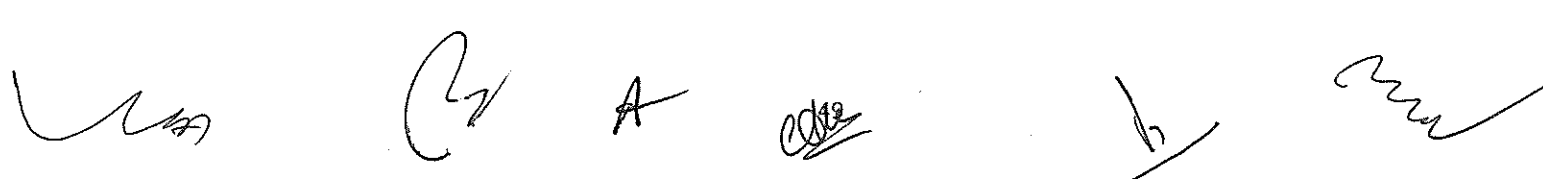
The entire produced material (stone) will be used as boulders of different sizes for River Anti erosion, Dam construction, embankment works etc. Therefore, it is concluded that the generation of waste will be nil in mining.

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.

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- 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:

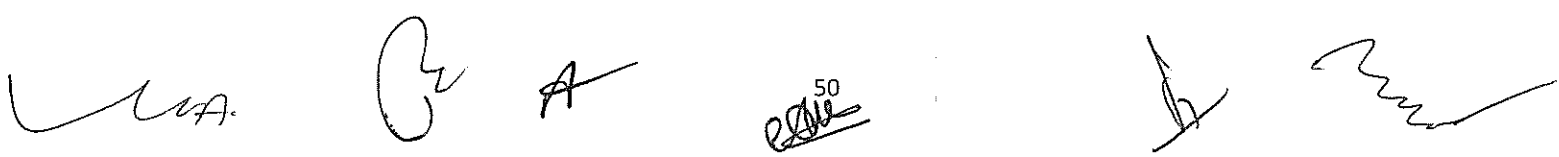
- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are 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 is required permission should be taken from competent authority.

During the presentation the following documents were sought :

- i. Gram Sabha of recent date to be submitted.
- ii. Ultimate working depth and water balance diagram to be revised.
- iii. Justification for the substantial difference between the Geological Reserve and Mineable Reserve is to be submitted.

The Project Authorities have submitted the above mentioned documents.

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 Tirildih Stone Block of M/s Kiran Construction & Infrastructure Pvt. Ltd. (Prop. : Sri Sukhvinder Singh), Village : Tirildih, Block : Potka, Distt. : East Singhbhum, Jharkhand (4.27 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IV.



7. Jaidiha Stone Deposit of Smt. Asha Rani Tete, Village : Jaidiha, P.S. : Ormanjhi, Distt. : Ranchi, Jharkhand (0.687 Ha).

(Proposal No.SIA/JH/MIN/413927 /2023).

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

This is a new project which has been taken for appraisal on 21.02.2023.

Project Category : B2 – Application for Environment Clearance

EC Application for : Proposed Production – 7439.14 cum/annum or 20085.70 TPA

Project and Location Details :

S. No.	Parameter	Details	
1	Project Name	: Jaidiha Stone Deposit	
2	Lessee:	: Smt. Asha Rani Tete, W/o Teles for Kiro	
3	Lease Address	: At - D.T. - Front of 1207, Dam side Dhurwa, District- Ranchi, Jharkhand	
4	Lease Area	: 0.687 ha	Acres- 1.70Acre
5	Type of Land	: Non Forest Land	
6	Project Cost	: Rs.20 Lakhs	
7	EMP Budget	: Capital: 3.55Lakhs	Recurring: 3.92 Lakh / year
8	CSR / CER Budget	: Rs. 40,000/-	
9	New or Expansion	: New	
10	Mineable Reserves	: 74396.4 cum	200870.28 tons
11	Mine Life	: 10 years	
12	Man power	: 22	
13	Water Requirement	: 4.545 ~ 5.0 KLD.(Drinking: 0.22 KLD,Dust Suppression: 2.52 KLD, Plantation: 1.80 KLD)	
14	Water Source	: From Nearby villages by tankers	
15	DG Set / power	: 50 KVA	
16	Crusher	: No	
17	Nearest Water Body	: Bhera Nadi, Approx. 1.60 km towards South direction of mine site. Getalsud Dam Approx. 5.70 km towards SSW direction of mine site.	
18	Nearest Habitation	: Jaidiha , Approx. 0.55 km. in NE direction.	
19	Nearest Rail Station	: Ramgarh Cantonment Railway station, approx. 10.10 km toward NNW direction.	
20	Nearest Air Port	: Birsa Munda Airport, approx. 32.10 km towards SW direction.	

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21	Nearest Forest	: Protected Forest near Gurgain Approx. 1.80 km towards WSW direction of mine site. Protected Forest near Burhibaghi Approx. 1.60 km towards South direction of mine site. Protected Forest near Lohratoli Approx. 3.80 km towards WNW direction of mine site Protected Forest Approx. 3.40 km towards NE direction of mine site.
22	Road & Highways	: NH-320, Approx. 3.60 km. in South direction. NH-20, Approx. 3.80 km. in West direction.

CO-ORDINATES

1	Latitude	From 23°31'28.4400"N	To 23°31'32.5227"N
2	Longitude	From 85°32'17.5624"E	To 85°32'20.6208"E

LAND DETAILS :

Khata No.	Plot No.
45	1099 (P)

STATUTORY CLEARANCES :

1	LOI/Lease docs	: The LOI has been issued by DMO, Ranchi vide letter no. 929/M , dated 22.10.2022.
2	CO	: The CO, Ormanjhi (Ranchi) vide letter no. 766 (ii), dated 15.12.2020 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S Khatiyani & Register II.
3	DMO	: DMO, Ranchi vide memo no. 1028/M, dated 11.12.2021 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	: DFO, Wildlife Ranchi vide letter no. 1082, dated 06.12.2021 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Forest Distance	: DFO, Ranchi Division vide letter no. 263, dated 22.01.2021 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. 1161/M, dated 30.12.2021 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 vide Letter no. 34(ii), dated 11.01.2021 informed that Gram Sabha conducted on 02.01.2021
8	Mine Plan Approval	: Additional Director, Geology, Hazaribag vide memo no. 351, dated 28.10.2022.

WORKING DETAILS

1	Mining Method	: Opencast semi-mechanized Mining method
2	Quarry Area	: 0.687 ha.
3	Waste Generation	: 5489.82 cum
4	Stripping Ratio	: 1:0.2
5	Working Days	: 300
6	Benches: size & No	: 6m to 6m
7	Elevation of Mine	: 582 AMSL to 568 AMSL
8	Ground Level Elevation	: 568 AMSL
9	Ultimate Working Depth	: 563 AMSL (3 mbgl)
10	Water Table	: 548 AMSL (20 mbgl)
11	Topography of Mine	: Area represents small hillock
12	Explosive Requirement	: 8 tonne/kg
13	Diesel/Fuel requirement	: 70 litre/day

PRODUCTION DETAILS

Year	Production of Stone		Overburden (in cum)	Intercalated Waste (in cum)	Total Waste (cum)
	(in Tones)	(in cum)			
1st	20085.70	7439.14	3328.00	391.53	3719.53
2nd	20073.70	7434.70	208.00	391.30	599.30
3rd	20007.00	7410.00	0	390.00	390.00
4th	19980.30	7400.11	0	389.48	389.48
5th	20084.40	7438.66	0	391.51	391.51
Total	100231.00	37122.61	3536.00	1953.82	5489.82

Land Use

53

Pattern of Utilization	Existing (Ha)	During Plan Period (ha)	After Life of Mine (ha)
Quarry	--	0.335	0.398 (0.094 ha area shall be backfilled & 0.182 ha. area shall be left as water reservoir and rest of the area will be used as dead bench plantation)
Road	--	0.002	--
Waste Dump	--	0.053	Nil (Waste Dump to be removed and backfilled)
Safety Zone Plantation	--	0.289	0.289
Total area in use	0.000	0.679	0.687
Unused Area	0.687	0.008	--
Lease hold area	0.687	0.687	0.687

ENVIRONMENT MANAGEMENT

Green Belt Development

Type	Area
Safety zone plantation	0.289 ha
Approach road	0.180 km

Year	Safety Zone Area (in Hectare)/No. of Plants	Plantation along both sides of Approach road	Location
1 st Year	0.289/720	180	Approach road – 180 nos – along both sides of approach road at spacing of 2 m.
2 nd year	Care / Protection of Plants		
3 rd year			
4 th year			
5 th Year			
Total	720	180	
Total no. of plants	900		

Afforestation will be done along the barrier zone. About 900 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

It is proposed that the total wastes will 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

The impact of mining project on groundwater hydrology and surface water regime are site specific and depends upon the characteristics of the mineral, hydrogeology and requirement of groundwater for other uses.

Following water pollution control measures are proposed:

- The quarrying activity will be confined to the lease area and there are no perennial streams or nalas present over there.
- To prevent the siltation, garland drain along with settling tank will be constructed around the lease area to maintain the natural flow of surface run-off during rains.
- Rain water collected in the excavated area will be pumped into the garland drain upstream of settling tank.
- Settling tanks will be de-silted regularly, especially before onset of the monsoon season.
- No effluent will be generated during the mining operation.
- Sewage from washrooms will be treated in septic tanks and disposed in Soak pits.

(i) SURFACE WATER MANAGEMENT

There is no surface water body within the 500m radius of this lease area so surface water will not be contaminated due this mine, etc.

(ii) GROUND WATER MANAGEMENT

This mining is not going to intersect the ground water. Hence water quality will not be changed in the surrounding area due this mine, etc.

Air Quality Management

The method of mining is open cast semi mechanized operation which involved controlled drilling and blasting. Hence, it is expected that the ambient air quality may slightly change significantly & dust particles get generated during various mining activities. This activities lead to increase in PM₁₀ & PM_{2.5} level in the ambient air. The major source of dust generation will be from transportation of material. However, following measures will be adopted to minimize fugitive dust emission:

- Tractor water tanker shall be used to irrigate plantation.
- Grading of haul roads, service roads time to time, to remove the accumulated dusty material.
- Proper maintenance of the earth moving equipment and vehicles, checking of exhaust emission and imposing of speed restrictions on them.
- Twice in a week, water sprinkling will be done on haul and approach roads by water Tanker.

- Two row plantations will be carried out in the barrier zone.
- The trucks with loading material will be covered with tarpaulin sheets and Speed of the vehicles will be maintained within the prescribed limits.
- Only "Pollution Under Control" certified vehicles will be used for transportation
- Half yearly monitoring will be carried out of air, water, soil and noise.
- PPE Kit (Helmet, boots, Mask, sanitizer etc) will be provide for each of the mining worker.

Undertaking submitted affirming:

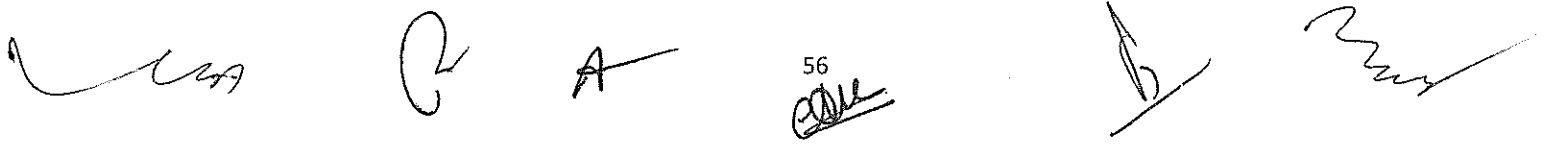
- Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- The District survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- If any changes are noticed 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
- The Boundary Pillars of the proposed mine lease area will be maintained properly.
- One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- 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.
- Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- 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.
- If any tree felling than necessary permission shall be taken from the competent authority.

During the presentation the following document was sought :

- Ground Water Level diagram to be prepared to the scale and submit the same.

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 Jaidiha Stone Deposit of Smt. Asha Rani Tete, Village : Jaidiha, P.S. : Ormanjhi, Distt. : Ranchi, Jharkhand (0.687 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IV.



8. Uria Stone Block of M/s Maa Tara Construction and Equipment Co., Village : Uria, P.S. : Patamda, Distt. : East Singhbhum, Jharkhand (4.046 Ha).

(Proposal No.SIA/JH/MIN/417892 /2023).

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

This is a new project which has been taken for appraisal on 21.02.2023.

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Production –24010.00 cum/annum or 55223.00 TPA

Project and Location Details :

S. No.	Parameter	Details
1	Project Name	: Uria Stone Block
2	Lessee:	: M/S Maa Tara Construction and Equipment Co. (Partner Shri Amrit Mahato)
3	Lease Address	: M/S Maa Tara Construction and Equipment Co. Partner Shri Amrit Mahato S/o - Late Akul Chandra Mahato, At. A.R. Mension West Lay out Sonari, Dist. - East Singhbhum Jharkhand.
4	Lease Area	: 4.046 ha Acres- 10.0Acre
5	Type of Land	: Non Forest Land
6	Project Cost	: Rs.70 Lakhs
7	EMP Budget	: Capital: 7.235Lakhs Recurring: 3.27 Lakh / year
8	CSR / CER Budget	: Rs. 1,40,000/-
9	New or Expansion	: New
10	Mineable Reserves	: 283934.44 tons
11	Mine Life	: 5.14 years
12	Man power	: 24
13	Water Requirement	: 11.38 ~ 12.0 KLD.(Drinking: 0.24 KLD,Dust Suppression: 4.23 KLD, Plantation: 6.51 KLD)
14	Water Source	: From Nearby villages by tankers
15	DG Set / power	: 50 KVA
16	Crusher	: No
17	Nearest Water Body	: Totko Nadi Approx. 3.80 km towards South direction of mine site. Kumir Nala Approx. 3.90 km towards SW direction of mine site.
18	Nearest Habitation	: Uria , Approx. 0.21 km. in WNW direction.
19	Nearest Rail	: Tatanagar Junction Railway station, approx. 38.11 km towards SW

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	Station	:	direction.
20	Nearest Air Port	:	Birsa Munda Airport, approx. 127.94 km towards NW direction
21	Nearest Forest	:	Protected Forest Approx. 1.75 km towards South direction. Protected Forest Approx. 2.80 km towards East direction. Fairly Dense Mixed Jungle Approx. 2.50 km towards North direction. Protected Forest Approx. 3.10 km towards SSW direction of mine site.
22	Road & Highways	:	SH- 5, approx. 6.36 km. in SE direction.

CO-ORDINATES

1	Latitude	From 22°57'11.25"N	To 22°57'22.40"N
2	Longitude	From 86°30'54.65"E	To 86°30'42.19"E

LAND DETAILS :

Khata No.	Plot No.
624	4546 (P)

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The LOI has been issued by Director of Mines, Department of Mines & Geology, Govt. of Jharkhand vide letter no. Kha.Ni (Nilami)-75/2022-1479 M/Ranchi, dated 15.07.2022.
2	CO	:	The CO, Patmada vide letter no. 755, dated 05.11.2022 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. 1079/Khanan, dated 22.12.2022 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Dalma Elephant	:	DFO, Dalma Elephant Project vide letter no. 1621, dated 10.11.2022 certified that the proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary. The additional comments given by the DFO, Dalma Elephant Project is not appropriate.
5	DFO Forest Distance	:	DFO, Jamshedpur Division vide letter no. 1869, dated 18.08.2022 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	:	BDO, Patmada vide letter no. 49, dated 09.01.2023 informed that Gram Sabha conducted on 02.02.2017.
8	Mine Plan Approval	:	Additional Director, Geology, Hazaribag vide memo no. 214/G, Hazaribag dated 30.08.2022.

WORKING DETAILS

1	Mining Method	:	Opencast semi mechanized Mining method
2	Quarry Area	:	4.046 ha.
3	Waste Generation	:	2446.00 cum
4	Stripping Ratio	:	1:0.2
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	220 AMSL to 235 AMSL
8	Ground Level Elevation	:	220 AMSL
9	Ultimate Working Depth	:	201 AMSL
10	Water Table	:	191 AMSL (10 mbgl)
11	Topography of Mine	:	Area represents small hillock
12	Explosive Requirement	:	8 tonne/kg
13	Diesel/Fuel requirement	:	80 litre/day

PRODUCTION DETAILS

Year	Production of Stone (98%)		Intercalated waste 2% (cum)	Total Waste in (cum)
	(cum)	(tons)		
1st	23961.00	55110.30	489.00	489.00
2nd	23961.00	55110.30	489.00	489.00
3rd	23961.00	55110.30	489.00	489.00
4th	23961.00	55110.30	489.00	489.00
5th	24010.00	55223.00	490.00	490.00
Total	119854.00	275664.20	2446.00	2446.00

Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Excavation	2.150	2.859	3.332
Road	0.050	0.050	0.024
Waste Dump	---	Nil	Nil
Infrastructure	Nil	Nil	Nil
Plantation (green belt)	Nil	0.690 (within safety zone)	0.690 (within safety zone)
Total	2.200	3.599	4.046
Balanced Area	1.846	0.447	---
Total	4.046	4.046	4.046

ENVIRONMENT MANAGEMENT

Green Belt Development

Type	Area
Safety zone plantation	0.690 ha
Approach road	0.130 km

Year	Area for Greenbelt in Hectare/saplings	Plantation along both sides of Approach road	No. of plants in buffer zone consulting local authorities	Location
1 st Year	0.690 ha/ 1725 plants	130	1600	Approach road –130 nos – along both sides of approach road at spacing of 2 m. 1600 nos. In village area like School premises, Aangawadi, Panchayat Bhavan and other places
2 nd Year	Care / Protection of Plants			
3 rd Year				
4 th Year				
5 th Year				
Total	1725	130	1600	
Total	3455			

Afforestation will be done along the barrier zone. About 3455 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

It is proposed that the total wastes will 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

The impact of mining project on groundwater hydrology and surface water regime are site specific and depends upon the characteristics of the mineral, hydrogeology and requirement of groundwater for other uses.

Following water pollution control measures are proposed:

- The quarrying activity will be confined to the lease area and there are no perennial streams or nalas present over there.
- To prevent the siltation, garland drain along with settling tank will be constructed around the lease area to maintain the natural flow of surface run-off during rains.
- Rain water collected in the excavated area will be pumped into the garland drain upstream of settling tank.
- Settling tanks will be de-silted regularly, especially before onset of the monsoon season.
- No effluent will be generated during the mining operation.
- Sewage from washrooms will be treated in septic tanks and disposed in Soak pits.

SURFACE WATER MANAGEMENT

There is no surface water body within the 500m radius of this lease area so surface water will not be contaminated due this mine, etc.

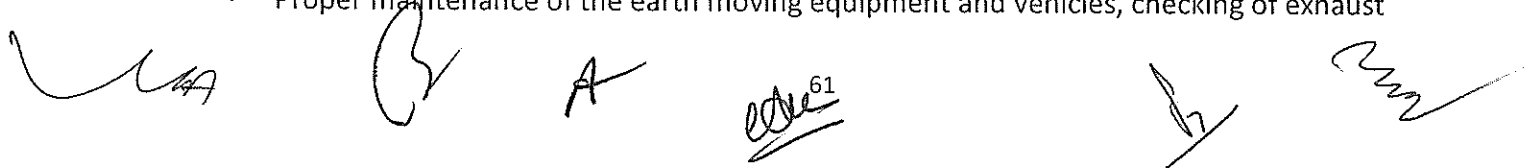
GROUND WATER MANAGEMENT

This mining is not going to intersect the ground water. Hence water quality will not be changed in the surrounding area due this mine, etc.

Air Quality Management

The method of mining is open cast semi mechanized operation which involved controlled drilling and blasting. Hence, it is expected that the ambient air quality may slightly change significantly & dust particles get generated during various mining activities. This activities lead to increase in PM₁₀ & PM_{2.5} level in the ambient air. The major source of dust generation will be from transportation of material. However, following measures will be adopted to minimize fugitive dust emission:

- Tractor water tanker shall be used to irrigate plantation.
- Grading of haul roads, service roads time to time, to remove the accumulated dusty material.
- Proper maintenance of the earth moving equipment and vehicles, checking of exhaust



emission and imposing of speed restrictions on them.

- Twice in a week, water sprinkling will be done on haul and approach roads by water Tanker.
- Two row plantations will be carried out in the barrier zone.
- The trucks with loading material will be covered with tarpaulin sheets and Speed of the vehicles will be maintained within the prescribed limits.
- Only "Pollution Under Control" certified vehicles will be used for transportation
- Half yearly monitoring will be carried out of air, water, soil and noise.
- PPE Kit (Helmet, boots, Mask, sanitizer etc) will be provide for each of the mining worker.

Undertaking submitted affirming:

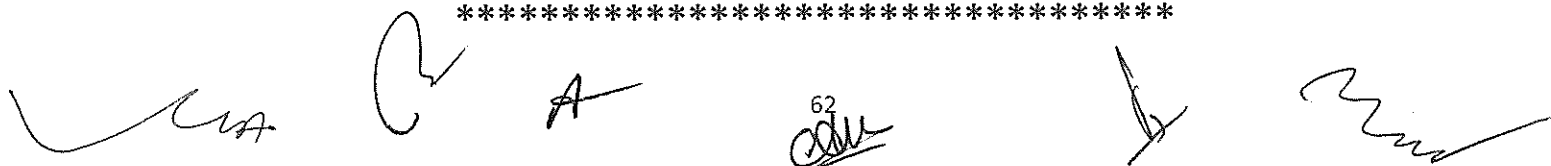
- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are 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 document was sought :

- i. Ground Water Level diagram to be prepared to the scale and submit the same.

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 Uria Stone Block of M/s Maa Tara Construction and Equipment Co., Village : Uria, P.S. : Patamda, Distt. : East Singhbhum, Jharkhand (4.046 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IV.



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9. Nawa Bazar Stone Deposit of M/s Tirupati Construction (Partners : Sri Manoj Kumar, Sri Mukesh Kumar Singh, Sri Nathuni Prajapati, Sri Ambuj Ranjan & Sri Birju Ram), Village : Nawa Bazar, P.S. : Chhatarpur, Distt. : Palamau, Jharkhand (2.428 Ha).

(Proposal No.SIA/JH/MIN/ 417632 /2023).

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 30100.75 cu.m/annum or 81272.03 TPA

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

This is a new project which has been taken for appraisal on 21.02.2023.

Project and Location Details :

Sl	Parameter	Details
1	Project Name	: Nawa Bazar Stone Deposit
2	Lessee:	: M/S TIRUPATI CONSTRUCTION Partners- Sri Manoj Kumar, Sri Mukesh Kumar Singh, Sri Nathuni Prajapati, Sri Ambuj Ranjan & Sri Birju Ram
3	Lease Address	: M/S TIRUPATI CONSTRUCTION, Partners - Sri Manoj Kumar, Sri Mukesh Kumar Singh, Sri Nathuni Prajapati, Sri Ambuj Ranjan & Sri Birju Ram Add- Village – Karma kalan, Mahendra Petrol Pump, P.S.- Chhatarpur, District – Palamau State - Jharkhand
4	Lease Area	: 2.428 Ha. Acres- 6.00 Acres
5	Type of Land	: Non Forest – Raiyati Land
6	Project Cost	: Rs. 60 Lakhs
7	EMP Budget	: Capital: 6.55 Lakhs Recurring: 3.27 Lakh / year
8	CSR / CER Budget	: Rs. 1.20 Lakhs
9	New or Expansion	: New
10	Mineable Reserves	: 812579.18 MT
11	Mine Life	: 10 years
12	Man power	: 23
13	Water Requirement	: 12.43 ~ 12.50 KLD (Drinking: 0.23 KLD, Dust Suppression: 7.9 KLD, Plantation: 4.3 KLD)
14	Water Source	: From Nearby villages by tankers
15	DG Set / power	: 50 KVA
16	Crusher	: The stone boulders produced from this mine shall be crushed in Lessee own crusher which shall be installed outside the lease area.

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17	Nearest Water Body	:	Shahi Nadi- Approx 4.80 km towards SE direction of mine site
18	Nearest Habitation	:	Nawa, Approx. 0.70 km towards NE direction.
19	Nearest Railway Station	:	Rajhura Railway station, approx. 15.80 km towards SSW direction.
20	Nearest Air Port	:	Birsa Munda Airport, approx. 164.70 km towards SE direction.
21	Nearest Forest	:	Turidang Protected Forest - Approx 4.0 km towards S direction of mine site. Protected Forest near sohdag Khurd - Approx 1.0 km towards West direction of mine site. Open mixed jungle - Approx 3.2 km towards N direction of mine site Protected Forest - Approx 1.2 km towards E direction of mine site.
22	Road & Highways	:	NH- 139, Approx. 0.60 km in East direction.

CO-ORDINATES

1	Latitude	From 24°16'46.6221"N	To 24°16'40.7655"N
2	Longitude	From 84°05'39.5398" E	To 84°05'31.2557"E

LAND DETAILS :

Khata No.	Plot No.
11	1085 (P)

STATUTORY CLEARANCES:

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Palamau, Medininagar vide letter no. 3280/M , dated 16.12.2022.
2	CO	:	The CO, Nawabazar (Palamau) vide letter no. 147, dated 06.04.2022 has mentioned the plot no. of the project is not recorded as "Jangal Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Palamau, Medininagar vide memo no. 3438/M, dated 30.12.2022 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	Deputy Director, Palamau Tiger Project, North Division, Medininagar vide letter no. : 05, dated 03.01.2023 certified that the proposed project site is outside Eco Sensitive Zone of Palamau Wildlife Sanctuary, Betla National Park and Mahuadanr Wolf

			Sanctuary.
5	DFO Forest Distance	:	DFO, Medininagar Forest Division vide letter no. : 3026, dated 21.10.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC-cum-District Magistrate, Palamau, Medininagar vide letter no. 233/M, dated 30.01.2023 has informed that this project is part of District Survey Report (DSR) at Palamau district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Nawabazar (Palamau) vide letter no. 1084, dated 25.11.2022 has informed that Gram Sabha conducted on 24.11.2022
8	Mine Plan Approval	:	District Mining Officer, Gumla Vide letter no. 71/M, dated 12.01.2023.

Working Details

1	Mining Method	:	Opencast semi mechanized method	
2	Quarry Area	:	2.428 ha. or 6.00 Acre	Life of Mine – 10 Years
3	Waste Generation	:	27703.60 cum or 74799.72 Tonnes	
4	Stripping Ratio	:	1: 0.15	
5	Working Days	:	300	
6	Benches: size & No	:	6m to 6m	
7	Elevation of Mine	:	304 AMSL to 298 AMSL	
8	Ground Level Elevation	:	304 AMSL	
9	Ultimate Working Depth	:	274 AMSL	
10	Water Table	:	265 AMSL (20mbgl)	
11	Topography of Mine	:	Area represents small hillock topography	
12	Explosive Requirement	:	8kg/day	
13	Diesel/Fuel requirement	:	80 litre/day	

Production Details

Year	Production of stone (cum)	Production of stone (tons)
1 st	30100.75	81272.03
2 nd	30096.00	81259.20
3 rd	30072.25	81195.08

4 th	30099.80	81269.46
5 th	30084.60	81228.42
Total	150453.40	406224.19

Land Use

Type of Land Use	Existing (ha)	At the end of plan period (Ha.)	At Conceptual period (Ha.)
Quarry	--	0.928	1.928 ha
Road	--	0.045	--
Waste Dump	--	0.325	--
Plantation (Safety Zone)	--	0.500	0.500
Total Area Used	--	1.798	2.428
Unused Area	2.428	0.630	--
Total Lease Hold Area	2.428	2.428	2.428

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.500 ha	2150
2	Along Approach Road	0.900 m	900

Year	Safety Zone Area(in Ha)/ No. of Plants	Plantation along both sides of Approach road	Name of the Species to be planted
1 st Year	0.500 ha/1250	900	Jackfruits, Babul, Arjuna, Gulmohar, Neem, Pipal, Mango, etc.
2 nd year	Care/Maintenance of Plants		
3 rd year			
4 th year			
5 th Year			
Total	1250	900	

Total no. of plants	2150
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- 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 27703.60 cum or 74799.72 Tonnes waste during the plan period will be generated which will 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 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.
- 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 is required permission should be taken from competent authority.

During the presentation the following document was sought :

- i. Ground Water Level diagram to be prepared to the scale and submit the same...

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 Nawa Bazar Stone Deposit of M/s Tirupati Construction, Village : Nawa Bazar, P.S. : Chhatarpur, Distt. : Palamau, Jharkhand (2.428 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IV.

10. Karhiya Stone Deposit of M/s Rajlakshmi Stone Works, Village : Karhiya, Thana : Karon, Distt. : Deoghar, Jharkhand (1.25 Ha).

(Proposal No.SIA/JH/MIN/ 417614 /2023).

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

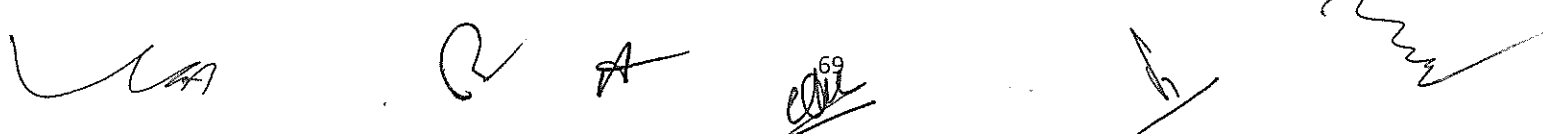
This is a new project which has been taken for appraisal on 21.02.2023

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 26726.00 cum/annum or 72160.20 TPA

Project and Location Details :

Sl	Parameter	Details	
1	Project Name	: Karhiya Stone Deposit	
2	Lessee:	: M/S Rajlakshmi Stone Works, (Partner - Sri Manohar Kumar, Smt. Champa Devi, Sri Ujjwal Pandit, Sri Shibu Hembrom)	
3	Lease Address	: M/S Rajlakshmi Stone Works, (Partner - Sri Manohar Kumar, Smt. Champa Devi, Sri Ujjwal Pandit, Sri Shibu Hembrom), District- Deoghar, Jharkhand	
4	Lease Area	: 1.25 ha	Acres- 3.09 Acres
5	Type of Land	: Non Forest – Raiyati Land	
6	Project Cost	: Rs. 40 Lakhs	
7	EMP Budget	: Capital: 3.15 Lakhs	Recurring: 3.27 Lakh / year
8	CSR / CER Budget	: Rs. 0.80 Lakhs	
9	New or Expansion	: New	
10	Mineable Reserves	: cum.: 267260 cum	Tonnes: 721602.0 tons
11	Mine Life	: 10 years	
12	Man power	: 20	
13	Water Requirement	: 6.30 KLD(Drinking: 0.20 KLD, Dust Suppression: 3.545 KLD, Plantation: 2.50 KLD)	
14	Water Source	: From Nearby villages by tankers	
15	DG Set / power	: 60 KVA	
16	Crusher	: No crusher	
17	Nearest Water Body	: Pathajor Nala : Approx. 0.18 km towards East direction of mine site. Jainti River: Approx. 3.70 km towards NE direction of mine site.	
18	Nearest Habitation	: Karhiya, at 1.38 Km NW direction.	
19	Nearest Rail Station	: Madankata Railway station, approx. 2.65 km towards NE direction.	
20	Nearest Air Port	: Deoghar Airport, approx. 32.60 km towards N direction..	
21	Nearest Forest	:	



			Protected Forest near Baskupi Open Jungle near Madankata Bharkota Protected Forest Open Scrub Jungle near Kuchlapahari Open Jungle near Kendbariya	Approx. 2.30 km towards NW direction of mine site. Approx. 3.30 km towards NE direction of mine site Approx. 1.30 km towards SE direction of mine site Approx. 3.80 km towards SE direction of mine site Approx. 2.60 km towards SE direction of mine site
22	Road & Highways	:	NH-114A, Approx. 10.20 km. in North direction.	

LAND DETAILS :

Khata No.	Plot No.
04	725, 731, 733, 734 (P), 754 (P)
07	727 (P)
10	726 (P)
12	755 (P)

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Deoghar vide letter no. 1430/M, dated 24.12.2022.
2	CO	:	The CO, Karon (Deoghar) vide letter no. : 438/Ra, dated 12.11.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Deoghar vide memo no. 143/M, dated 09.02.2023 certified that 01 other mining lease area (2.80 acre) exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. : 2135, dated 04.11.2022 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Deoghar Forest Division vide letter no. : 1257, dated 10.09.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC-cum-District Magistrate, Deoghar vide letter no. 61/M dated 12.01.2023 has informed that this project is part of District

			Survey Report (DSR) of Deoghar district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Karon (Deoghar) vide letter no. 938/Vi, dated 12.11.2022 informed that Gram Sabha conducted on 29.10.2022.
8	Mine Plan Approval	:	District Mining Office, Koderma vide letter no. 259, dated 07.02.2023.

Working Details

1	Mining Method	:	Opencast semi-mechanised Method
2	Quarry Area	:	1.25 ha. Or 3.09 Acres
			Life of Mine – 10 Years
3	Waste Generation	:	4013.0 cum or 10835.10 tons
4	Stripping Ratio	:	1: 0.01
5	Working Days	:	300
6	Bench: size & No	:	6m to 6m
7	Elevation of Mine	:	207 AMSL to 209 AMSL
8	Ground Level Elevation	:	207 AMSL
9	Ultimate Working Depth	:	190 AMSL
10	Water Table	:	170 AMSL (20mbgl)
11	Topography of Mine	:	Area represents undulating topography
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 st	63261.00	23430.00	208mRL - 202mRL
2 nd	66825.00	24750.00	208mRL - 202mRL
3 rd	68796.00	25480.00	202mRL - 196mRL
4 th	72160.20	26726.00	202mRL - 196mRL
5 th	72160.20	26726.00	196mRL - 190mRL
Total	343202.40	127112.00	

Land Use

Pattern of Utilization	Existing (Ha)	During Plan Period (ha)	After Life of Mine (ha)
Quarry	--	0.562	0.850
Road	0.006	0.003	0.003
Safety Zone Plantation	--	0.397	0.397
Total area in use	0.006	0.962	1.25
Unused Area	1.244	0.288	--
Lease hold area	1.25	1.25	1.25

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.397 ha	990
2	Along Approach Road	0.260 km	260

Year	Safety Zone Area (in Hectare)/No. of Plants	Plantation along both sides of Approach road	Location
1 st Year	-----	-----	Approach road – 260 nos. – along both sides of approach road at spacing of 2 m.
2 nd year	0.397/990	260	
3 rd year	Care & Maintenance of plants		
4 th year			
5 th Year			
Total	990	260	
Total no. of plants	1250		

- 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 4013.0 cum or 10835.10 tons waste during the plan period will be generated. Part of the waste shall be utilized for maintenances of the village road and making of approach road, haul road etc. and part of the waste shall be temporary dump in the western side of the applied area.

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.



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- 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 is required permission should be taken from competent authority.

During the presentation the following document was sought :

- i. Ground Water Level diagram to be prepared to the scale and submit the same.

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 Karhiya Stone Deposit of M/s Rajlakshmi Stone Works, Village : Karhiya, Thana : Karon, Distt. : Deoghar, Jharkhand (1.25 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IV.

11. Bankishol Stone Deposit of M/s Swastik Enterprises (Partner : Sri Sandeep Murarka), Village : Bankishol, Circle : Dumariya, Distt. : East Singhbhum, Jharkhand (1.141 Ha).

(Proposal No.SIA/JH/MIN/ 717881 /2023).

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

This is a new project which has been taken for appraisal on 21.02.2023.

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 37038.0 cum/annum or 100003.0 TPA

Project and Location Details :

Sl	Parameter	Details
1	Project Name	: Bankishol Stone Deposit
2	Lessee:	: M/S Swastik Enterprises (Partner - Sandeep Murarka)
3	Lease Address	: M/S Swastik Enterprises (Partner - Sandeep Murarka), Marwari Para

			Road, Jugsalai, P.S + P.O.- Jugsalai District- East Singhbhum, Jharkhand
4	Lease Area	:	1.141 ha Acres- 2.82 Acres
5	Type of Land	:	Non Forest – Raiyati Land
6	Project Cost	:	Rs. 20 Lakhs
7	EMP Budget	:	Capital: 5.075 Lakhs Recurring: 3.27 Lakh / year
8	CSR / CER Budget	:	Rs. 0.40 Lakhs
9	New or Expansion	:	New
10	Mineable Reserves	:	cum.: 148992 cum Tonnes: 402278.40 tons
11	Mine Life	:	05 years
12	Man power	:	26
13	Water Requirement	:	9.56 ~ 9.60 KLD(Drinking: 0.26 KLD, Dust Suppression: 6.35 KLD, Plantation: 2.95 KLD)
14	Water Source	:	From Nearby villages by tankers
15	DG Set / power	:	50 KVA
16	Crusher	:	No crusher
17	Nearest Water Body	:	Sankh River - Approx 1.50 km towards SW direction of mine site.
18	Nearest Habitation	:	Bankishool, at 1.25 Km NW direction.
19	Nearest Rail Station	:	Ghatsila Railway station, approx. 18.15km towards NE direction.
20	Nearest Air Port	:	Birsa Munda Airport, approx.143.0 km towards NW direction..
21	Nearest Forest	:	Murakanjia Reserve Forest - Approx. 4.60 km towards NNE direction of mine site Kundaluka Reserve Forest- Approx. 2.0 km towards NE direction of mine site. Khaerbani Reserve Forest - Approx. 1.8 km towards SW direction of mine site
22	Road & Highways	:	NH - 18, Approx. 20.20 km in NE direction.

CO-ORDINATES

1	Latitude		From 22°27'35.93" N	To 22°27'40.85" N
2	Longitude		From 86°21'56.74" E	To 86°22'01.07" E

LAND DETAILS :

Khata No.	Plot No.
351	1446, 1447, 1448 &

STATUTORY CLEARANCES :

1	LOI/Lease docs	: The Letter of Intent (LoI) has been issued by District Mining Officer, East Singhbhum, Jamshedpur vide letter no. 341/Khanan, dated 22.02.2021.
2	CO	: The CO, Dumariya, East Singhbhum vide letter no. : 11 (A), dated 16.01.2020 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DMO	: DMO, East Singhbhum, Jamshedpur vide memo no. 366/Khanan, dated 26.04.2022 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	: DFO, Dalma Elephant Project vide letter no. : 606, dated 12.04.2021 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. : 722, dated 04.03.2020 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	: The District Magistrate -cum- DC, East Singhbhum, Jamshedpur vide letter no. 30/Khanan, dated 05.01.2023 has informed that this project is part of District Survey Report (DSR) at East Singhbhum district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	: BDO, Dumariya, East Singhbhum vide letter no. 185, dated 17.02.2022 informed that Gram Sabha conducted on 04.10.2019.
8	Mine Plan Approval	: Additional Director, Geology, Hazaribag vide letter no. 470/G, dated 15.03.2021.

Working Details

1	Mining Method	: Opencast other than fully mechanized (OTFM) Method
2	Quarry Area	: 1.141 ha. Or 2.82 Acres
3	Waste Generation	: 23796.00 cum or 64249.2 tons
4	Stripping Ratio	: 1: 0.13
5	Working Days	: 300

6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	162 AMSL to 166 AMSL
8	Ground Level Elevation	:	162 AMSL
9	Ultimate Working Depth	:	148 AMSL
10	Water Table	:	146 AMSL (20mbgl)
11	Topography of Mine	:	Area represents undulating topography
12	Explosive Requirement	:	8kg/day
13	Diesel/Fuel requirement	:	80 litre/day

Production Details

Year	Production of stone (cum)	Production of stone (tons)	Bench RL in Meters
1 st	37038.00	100003.00	166mRL - 154mRL
2 nd	37037.16	100000.33	163.30mRL - 148mRL
3 rd	37038.00	100002.60	154mRL - 148mRL
4 th	18860.00	50922.00	160mRL - 148mRL
5 th	19018.77	51350.47	164mRL - 148mRL
Total	148991.93	402278.40	

Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Excavation	-	0.886	0.886
Road	-	0.005	0.005
Waste Dump	-	-	-
Safety Zone Plantation	-	0.250	0.250
Total	-	1.141	1.141
Balanced Area	1.141	-	-
Total Applied Area	1.141	1.141	1.141

Environment Management

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.250 ha	625
2	Along Approach	0.850 km	850

	Road			
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Year	Area for Greenbelt in Hectare/saplings	Plantation along both sides of Approach road	Location
1 st Year	0.250 ha/ 625 plants	850	Approach road – 850 nos – along both sides of approach road at spacing of 2 m.
2 nd Year	Care / Protection of Plants		
3 rd Year			
4 th Year			
5 th Year			
Total	625	850	
Total	1475		

- 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 23796.00 cum or 64249.2 tons waste during the plan period will be generated. Part of the waste shall be utilized for maintenances of the village road and making of approach road, haul road etc. and part of the waste shall be temporary dump in the western side of the applied area.

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

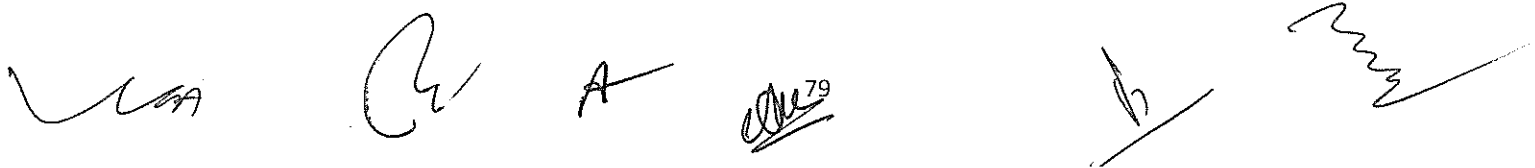
- For domestic waste water Septic Tank with Soak Pit shall be provided, discharge from Soak Pit, if any shall be used for plantation.
- It shall be ensured that quality of drinking water for the worker is hygienic and good sanitation system shall be made available.

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 is required permission should be taken from competent authority.



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9	New or Expansion	:	New
10	Mineable Reserves	:	Cu.m.: 3,78,900 cum Tonnes: 10,23,030 tons
11	Mine Life	:	9.97 or 10 years
12	Man power	:	25
13	Water Requirement	:	10.0 KLD (Drinking: 0.25 KLD, Dust Suppression: 5.66 KLD, Plantation: 3.98 KLD)
14	Water Source	:	From Nearby villages by tankers
15	DG Set / power	:	6 KVA
16	Crusher	:	No crusher
17	Nearest Water Body	:	Torai Nadi, Approx. 9.0 km towards N direction. Bansoli Nadi Approx. 9.0 km towards SE direction.
18	Nearest Habitation	:	Rajbandh, 0.40 km
19	Nearest Rail Station	:	Nagarnabi Railway station, approx. 3.0 km towards ENE direction.
20	Nearest Air Port	:	Kazi Nazrul Islam Airport, Durgapur, approx. 122.0 km towards SSW direction.
21	Nearest Forest	:	Protected Forest near Mohanpur Village at approx. 2.0 km towards WSW direction.
22	Road & Highways	:	NH-114A, Approx. 6.20 km. in North direction. SH-7, Approx. 5.20 km in SE direction.

Co-Ordinates

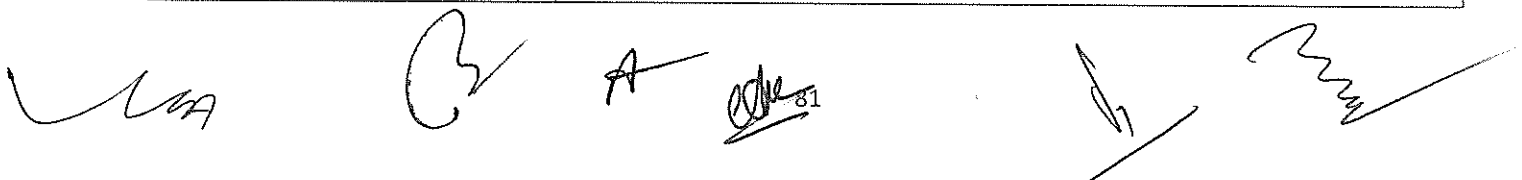
1	Latitude		From 24°34'43.10"N	To 24°34'52.29"N
2	Longitude		From 87°50'19.68"E	To 87°50'25.51"E

Land Details :

Khata No.	Plot No.
9	783(P) & 785(P)
22	781, 795, 797(P), 798, 799 & 800(P)
24	794(P)
25	782

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The LOI has been issued by District Mining Office, Pakur vide letter no. 1089/M, dated 08.07.2021.
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2	CO	:	The CO, Pakur vide letter no. 411/Ra, dated 24.03.2021 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Pakur vide memo no. 868/M, dated 10.05.2022 certified that the 03 other lease mine (6.22 acre, 9.00 acre & 10.75 acre) exists within 500 m radius from proposed project and total area is 29.81 acre or 12.06 ha.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 656, dated 23.03.2021 certified that the proposed project site is outside Eco Sensitive Zone of Udhawa Lake Bird Sanctuary.
5	DFO Forest Distance	:	DFO, Pakur Forest Division vide letter no. 792 dated 19.05.2021 certified that the distance of reserved / protected forest is more than 250 m from the project site.
6	DSR	:	The DC-cum-District Magistrate, Pakur vide letter no. 1412/M dated 12.08.2021 has informed that this project is part of District Survey Report (DSR) of Pakur district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Pakur vide letter no. 263/Vi, dated 20.02.2021 informed that Gram Sabha conducted on 18.02.2021.
8	Mine Plan Approval	:	Additional Director, Geology, Hazaribagh vide letter no. G/2022-23-38, dated 06.05.2022
9	Public Hearing	:	Public Hearing conducted on 30.12.2022.

Working Details

1	Mining Method	:	Opencast Mechanized Mining method
2	Quarry Area	:	5 years– 0.846 ha Life of Mine – 0.924 Ha
3	Waste Generation	:	5 years– 5100 cu.m
4	Stripping Ratio	:	1: 0.04
5	Working Days	:	300
6	Bench: size & No	:	6m x 6 m
7	Elevation of Mine	:	38 AMSL to 40 AMSL
8	Ground Level Elevation	:	38 AMSL
9	Ultimate Working Depth	:	15 AMSL (23 mbgl)
10	Water Table	:	10 AMSL (28 mbgl)
11	Topography of Mine	:	Area represents a flat topography.
12	Explosive Requirement	:	Class – III (special gelatin 80% strength) & Class –VI explosive (detonator, electric detonator and safety length) is used

13	Diesel/Fuel requirement	:	8 litre/day
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Production Details

Year	Production of stone (Cum))	Production of stone (Tonnes)	Waste Generation (CuM)	Bench RL in Meters
1 st	35400	95580	1650	40 mRL – 33 mRL
2 nd	36000	97200	1800	39 mRL - 33 mRL
3 rd	38550	104085	1650	39 mRL - 27 mRL
4 th	38550	104085	-	33 mRL - 27 mRL
5 th	38550	104085	-	33 mRL - 27 mRL
Total	187050	5,05,035	5100	

Land Use

Pattern of Utilization	Existing (Ha)	Plan period(Ha)	Conceptual stage (Ha)
Quarry	Nil	0.846	0.924 (entire area will be converted into water reservoir)
Road	0.012	0.003	0.003
Green Belt in safety barrier	Nil	0.627	0.627
Total	0.012	1.476	1.554
Unused Area	1.542	0.078	0.000
Total applied area	1.554	1.554	1.554

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.627 ha	1570
2	Haul /Approach Road	:	0.42 km	420

- 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 5100 cum waste during the plan period which will be used for village & haul road maintenance.

Water Quality Management

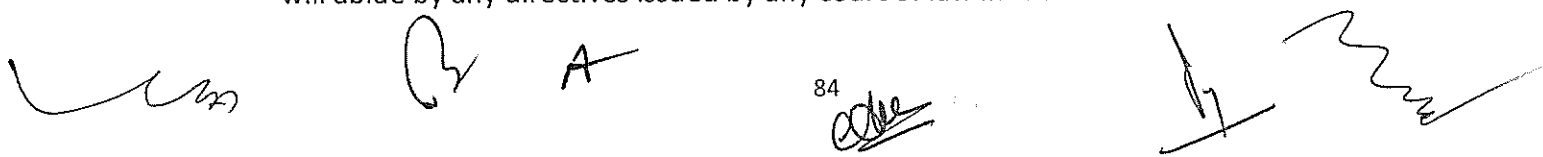
- Mining is planned to above the ground water table. In case any intersection is likely, mining activities will be stopped 9m above the Ground Water Table.
- The rain water during rainy season will be collected in a pit and shall be use for dust suppression and plantation. Excess water, if any shall 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.
- 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.

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- 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 is required a permission should be taken from 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 Rajbandh Stone Deposit of M/s Jial Das & Company, Village :Rajbandh, Thana : Pakur, Dist. : Pakur, Jharkhand (1.554 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IV.

13. Daridag Stone Deposit of M/s G.B. Enterprises (Partner : Sri Narayan Bediya, Smt. Asha Rani Tete, Sri Anil Kumar Gautam) Village: Daridag, Thana : Patratu, Distt. : Ramgarh, Jharkhand (1.214 Ha).

{Proposal No.SIA/JH/MIN/ 418965 /2023}.

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 37900.0 cu.m/annum or 102330.0 TPA

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

This is a new project which has been taken for appraisal on 21.02.2023.

Project and Location Details :

Sl	Parameter	Details
1	Project Name	: Daridag Stone Deposit
2	Lessee:	: M/S G.B. Enterprises, (Partner - 1. Sri Narayan Bediya, 2. Smt. Asha Rani Tete, 3. Sri Anil Kumar Gautam) Jharkhand

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3	Lease Address	:	M/S G.B. Enterprises (Partner - 1. Sri Narayan Bediya, Add. - Village - Daridag, PO - Pali, Thana - Patratu, District - Ramgarh, 2. Smt. Asha Rani Tete, Add. - D.T. Dhurwa Dam Site, District - Ranchi, 3. Sri Anil Kumar Gautam, Add. - Village - Daridag, PO - Pali, Thana - Patratu, District - Ramgarh Jharkhand)
4	Lease Area	:	1.214 ha Acres- 3.0 Acres
5	Type of Land	:	Non Forest – Raiyati Land
6	Project Cost	:	Rs. 30 Lakhs
7	EMP Budget	:	Capital: 6.25 Lakhs Recurring: 3.27 Lakh / year
8	New or Expansion	:	New
9	Mineable Reserves	:	cum.: 379020 cum Tonnes: 1023354.00 tons
10	Mine Life	:	10 years
11	Man power	:	20
12	Water Requirement	:	12.0 KLD(Drinking: 0.20 KLD, Dust Suppression: 7.595 KLD, Plantation: 4.0 KLD)
13	Water Source	:	From Nearby villages by tankers
14	DG Set / power	:	50 KVA
15	Crusher	:	No crusher
16	Nearest Water Body	:	Damodar River - Approx.5.20 km towards North direction of mine site.
17	Nearest Habitation	:	Daridag, at 800 meters
18	Nearest Rail Station	:	Barkakana Junction Railway station, approx. 5.10 km towards NE direction.
19	Nearest Air Port	:	Birsa Munda Airport, approx. 34.60 km towards SW direction.
20	Nearest Forest	:	Protected Forest, Approx 1.10 km towards North direction of mine site. Protected Forest, Approx 3.80 km towards SE direction of mine site. Fairly Dense Mixed Jungle, Approx 3.80 km towards SW direction of mine site. Fairly Dense Mixed Jungle, Approx 1.90 km towards NW direction of mine site.
21	Road & Highways	:	SH- 2, Approx. 3.80 km. in North direction

CO-ORDINATES

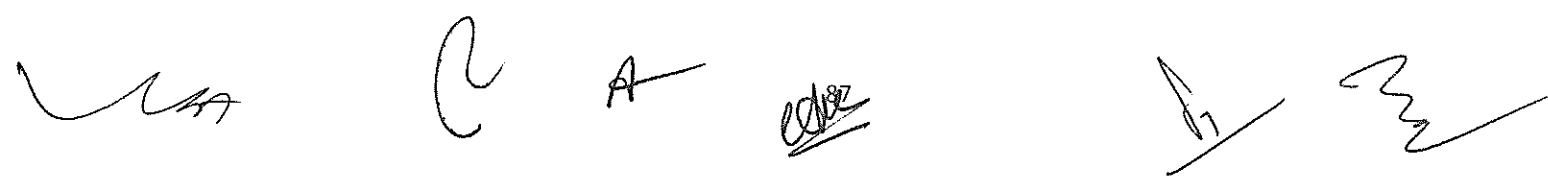
1	Latitude	From 23°35'12.09" N	To 23°35'19.71" N
2	Longitude	From 85°26'02.61" E	To 85°26'09.25" E

LAND DETAILS :

Khata No.	Plot No.
06	80 (P)
13	79, 81 (P)
30	77

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Ramgarh vide letter no. 11/Khanan, dated 06.01.2023.
2	CO	:	The CO, Patratu vide letter no. : 2608, dated 14.09.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Ramgarh vide memo no. 199/Khanan, dated 17.02.2023 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. : 2553, dated 20.12.2022 certified that the proposed project site is outside Eco Sensitive Zone of Hazaribagh Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Ramgarh Forest Division vide letter no. : 2330, dated 03.12.2022 certified that the distance of demarcated forest is 300 m from proposed project site.
6	DSR	:	The DC – cum – District Magistrate, Ramgarh vide letter no. 184/Khanan, dated 13.02.2023 has informed that this project is part of District Survey Report (DSR) of Ramgarh district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	Gram Sabha conducted on 30.12.2022.
8	Mine Plan Approval	:	District Mining Officer, Koderma vide letter no. 365, dated 16.02.2023.



Working Details

1	Mining Method	:	Opencast semi mechanized Method
2	Quarry Area	:	1.214 ha. Or 3.0 Acres
3	Waste Generation	:	2284.0 cum or 6166.8 tons
4	Stripping Ratio	:	1: 0.01
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	500 AMSL to 503 AMSL
8	Ground Level Elevation	:	500 AMSL
9	Ultimate Working Depth	:	475 AMSL
10	Water Table	:	460 AMSL (15 mbgl)
11	Topography of Mine	:	Area represents undulating topography
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 st	35200.00	95040.00	499mRL - 503mRL
2 nd	36000.00	97200.00	493mRL - 499mRL
3 rd	37800.00	102060.00	487mRL - 493mRL
4 th	37900.00	102330.00	481mRL - 487mRL
5 th	37900.00	102330.00	475mRL - 481mRL
Total	184800.00	498960.00	

Land Use

Type of Land Use	Existing (ha)	During Plan Period (ha)	During Conceptual Period/after closure of mines (ha)
Quarry	--	0.382	0.772
Road	0.008	0.003	0.003
Safety Zone Plantation	--	0.439	0.439
Total	0.008	0.824	1.214
Untouched Area	1.206	0.390	--
Total Lease Hold Area	1.214	1.214	1.214

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.439 ha	1100
2	Along Approach Road	0.900 km	900

Year	Area for Greenbelt in Hectare/saplings	Plantation along both sides of Approach road	Location
1 st Year	0.250 ha/ 625 plants	850	Approach road – 850 nos – along both sides of approach road at spacing of 2 m.
2 nd Year	Care / Protection of Plants		
3 rd Year			
4 th Year			
5 th Year			
Total	625	850	
Total	1475		

- 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 2284.0 cum or 6166.8 tons waste during the plan period will be generated which will 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 is required permission should be taken from competent authority.

During the presentation the following document was sought :

- i. Ground Water Level diagram to be prepared to the scale and submit the same.

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 Daridag Stone Deposit of M/s G.B. Enterprises (Partner : Sri Narayan Bediya, Smt. Asha Rani Tete, Sri Anil Kumar Gautam) Village: Daridag, Thana : Patratu, Distt. : Rangarh, Jharkhand (1.214 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IV.

14. Proposed Commercial Project of M/s Malti Residency Infra Projects Private Limited at Ranchi Smart City Plot no. 65, Village :Kachnartoli, Block : Namkum, Distt. : Ranchi, Jharkhand.

(Proposal No. : SIA/JH/INFRA2/418578 /2023)

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

This is a new project which has been taken for appraisal on 21.02.2023.

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

EC Application for : Proposed Residential project: Total built-up area is 24043.25 sq m.

PROJECT and LOCATION Details:

Parameters	Description
Plot Area	7682.25 sq.m (0.77 ha/1.9 acres)
Project Cost	INR 34.73 Crores
Built-up Area (@ 2.985 F.A.R)	24043.25 sq. m.
Green Area (@15.08 % of plot area)	1158.72sq m
Population	2608
Water Requirement	135 KLD
Fresh Water Requirement	65 KLD
Wastewater Generation	90 KLD
STP Capacity	95 KLD
Total Municipal Waste	312 kg/day
Power Requirement	Maximum power demand for the project during operation phase is estimated to be 2757 kVA respectively. Source of power will be Jharkhand State Electricity board.

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DG Sets	2*1010 KVA
RWH Pits	2 no.
Parking Area	602 No
Connecting road	site is well connected with Road adjacent to the site
National Highway	NH 39, 4.07 km, SW SH 2 , 15 km, N
Nearest Railway Station	Ranchi Junction Railway Station (6.33 km, NE)
Airport	Birsa Munda Airport (2.89 km, NE)
Nearest Hospitals	HEC plant Hospital (2.47 km, NW) Shree Superspeciality Hospital (1 km, NW)
Nearest Water Bodies	Dhurwa Dam (4.56 km, W) Ranchi Lake (7.46 km, NE) Kanke Dam (10.24 km, N) Subernrekha River(2.10 km, SE)

CO-ORDINATES

Point	Latitude	Longitude
A	23°17'56.22"N	85°18'15.25"E
B	23°17'56.22"N	85°18'13.61"E
C	23°18'01.23"N	85°18'13.64"E
D	23°18'01.50"N	85°18'13.97"E
E	23°18'01.50"N	85°18'15.31"E

LAND DETAILS

Khata No.	Plot No.
83	36, 42 & 168
78	37, 38, 39, 44 & 163
69	40 & 41
20	43 & 161
24	162

Area Summary :

Sl. no.	Description	Area (Sq m)
A.	Total plot area	7682.25
B.	Permissible FAR @3	23046.75
C.	Proposed FAR @ 2.985	22932.33
D.	Proposed Ground Coverage (@ 49.98% of plot area)	3839.92
E.	Non FAR area (Strain case, Lift, Balcony, Ramp, Accessory Use, Basement Parking)	1110.92

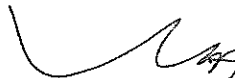





F.	Buil-up area	24043.25
G.	Green Area (@ 15.08% of plot area)	1158.72
H.	Height (m)	36.30 m

STATUTORY CLEARANCES

1	DFO Forest Distance	:	DFO, Ranchi Forests division vide letter no.4273 dated 22.12.2018 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. 63, dated 20.01.2023 certified that proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
3	CO certificate	:	The CO, Namkum (Ranchi) vide vide letter no. 29(ii) dated 07.01.2019 has mentioned the plot no. of the project is not recorded as "Jangal Jhari" in Khatiyon.
4	AAI NOC	:	PAs has submitted the application vide application no. RANC/EAST/B/012323/738313 for height clearance from Airport authority of India.
5	Fire Department	:	PAs has submitted the undertaking dated 07.02.2023 for Fire Advisory.
6	Building Plan	:	Conceptual Plan submitted.

Water and waste water Requirement Details

S. No.	Description	Area/No of Rooms	Total Population	Dom Water Requirement			Flushing Water requirement			Gross Water Req. (C)=(A +B)	Flow to Sewer (80% DOM +100% FLUSHING)
				LPCD	LPD (A)	Flow to Sewer in percent	LPCD	LPD (B)	Flow to Sewer in percent		
DAILY WATER DEMAND											
GROUND FLOOR											
1	Anchor	896	299								
a)	Floating Population	90% Total population	269	5	1,345	80	10	2,690	100	4,035	3,766

b)	Fixed Population	10% Total population	30	25	750	80	20	600	100	1,350	1,200
2	Shops	1,399	467								
a)	Floating Population	90% Total population	420	5	2,100	80	10	4,200	100	6,300	5,880
b)	Fixed Population	10% Total population	47	25	1,175	80	20	940	100	2,115	1,880
	Total				5,370			8,430		13,800	12,726

FIRST FLOOR







1	Retail, Anchor	885	148								
a)	Floating Population	90% Total population	133	5	665	80	10	1,330	100	1,995	1,862
b)	Fixed Population	10% Total population	15	25	375	80	20	300	100	675	600
2	Retail	1,387	232								
a)	Floating Population	90% Total population	209	5	1,045	80	10	2,090	100	3,135	2,926
b)	Fixed Population	10% Total population	23	25	575	80	20	460	100	1,035	920
	Total				2,660			4,180		6,840	6,308

SECOND FLOOR

1	Retail, Anchor	885	148								
a)	Floating Population	90% Total population	133	5	665	80	10	1,330	100	1,995	1,862
b)	Fixed Population	10% Total population	15	25	375	80	20	300	100	675	600
2	Retail	1,387	232								
a)	Floating Population	90% Total population	209	5	1,045	80	10	2,090	100	3,135	2,926
b)	Fixed Population	10% Total population	23	25	575	80	20	460	100	1,035	920

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	Total				2,660			4,180		6,840	6,308
THIRD FLOOR											
1	Office	2,056	317								
a)	Floating Population	10% Total population	32	5	160	80	10	320	100	480	448
b)	Fixed Population	90% Total population	285	25	7,125	80	20	5,700	100	12,825	11,400
	Total				7,285			6,020		13,305	11,848
FOURTH FLOOR											
1	Office	2,056	317								
a)	Floating Population	10% Total population	32	5	160	80	10	320	100	480	448
b)	Fixed Population	90% Total population	285	25	7,125	80	20	5,700	100	12,825	11,400
	Total				7,285			6,020		13,305	11,848
FIFTH FLOOR											
1	Spa	110	11	90	990	80	45	495	100	1,485	1,287
2	Gymnasium	86	14	25	350	80	20	280	100	630	560
3	Business Lounge	235	24	25	600	80	20	480	100	1,080	960
4	Pre Function Area	55	6								
a)	Floating Population	90% Total population	5	5	25	80	10	50	100	75	70
b)	Fixed Population	10% Total population	1	25	25	80	20	20	100	45	40
5	Bar/Restaurant	142	15	55	825	80	15	225	100	1,050	885
6	Lawn (Party Area)	408	41								
a)	Floating Population	90% Total population	37	5	185	80	10	370	100	555	518
b)	Fixed Population	10% Total population	4	25	100	80	20	80	100	180	160

7	Party Hall	197	110								
a)	Floating Population	90% Total population	99	5	495	80	10	990	100	1,485	1,386
b)	Fixed Population	10% Total population	11	25	275	80	20	220	100	495	440
	Total				3,870			3,210		7,080	6,306

6TH FLOOR - 8TH FLOOR

1	Hotel Room	105	210	120	25,200	80	60	12,600	100	37,800	32,760
2	Maids Room	0	0	90	0	80	45	0	100	0	0
	Total				25,200			12,600		37,800	32,760

1. landscape area confirmed by landscape consultant.

MISCELLANEOUS

1	Maintains staff	-	50	25	1,250	80	20	1,000	100	2,250	2,000
2	Swimming Pool	-	-	-	9,180	-	-	-	-	9,180	-
3	Landscape (SQ.MTRS)	1187	1187	0	0	0	8	9,496	-	9,496	-
	Total				10,430			10,496		20,926	2,000

TOTAL DAILY WATER DEMAND

1	Domestic Fresh Water Demand (Including Swimming Pool)	64,760	Liters	65	KLD
2	Recycle Water Demand (Flushing + landscaping)	55,136	Liters	55	KLD
	Total Water Demand	119,896	Liters	120	KLD

WASTEWATER CALCULATIONS

1	FLOW TO SEWER	90104	Liters	say	90	KLD
2	STP CAPACITY				95	KLD

Recovered water from STP (90% of Waste water)	81
1. Flushing	45
2. Landscaping	10
3. Fire Fighting	1
4. DG cooling	14
5. road washing/sewer	11

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Solid Waste Requirement

DESIGN CONSIDERATIONS	Waste Generation per person for Commercial	0.1	kg/day	
	Waste Generation per person for Residential	0.35	kg/day	
	Dry Garbage	60%	of Total Waste Generated	
	Wet Garbage	40%	of Total Waste Generated	
S. No.	Description	Area	Total Population	Total Waste Generated
Ground Floor				
1	Anchor	896	299	29.87
2	Shops	1,399	467	46.70
			TOTAL	76.57
First Floor				
1	Retail, Anchor	885	148	14.80
2	Retail	1,387	232	23.20
			TOTAL	38.00
Second Floor				
1	Retail, Anchor	885	148	14.80
2	Retail	1,387	232	23.20
			TOTAL	38.00
Third Floor				
1	Office	2,056	317	31.70
			TOTAL	31.70
Fourth Floor				
1	Office	2,056	317	31.70
			TOTAL	31.70
Fifth Floor				
1	Spa	110	11	1.10
2	Gymnasium	86	14	1.40
3	Business Lounge	235	24	2.40
4	Pre Function Area	55	6	0.60
5	Bar/Restaurant	142	15	1.50
6	Lawn (Party Area)	408	41	4.10

7	Party Hall	197	110	11.00
			TOTAL	22.1
6th Floor- 8th Floor				
1	Hotel Room	105	210	73.50
2	Maids Room	0	0	0.00
			TOTAL	73.50
GRAND TOTAL				312
1	Total Garbage Generated		=	311.5666666666667 KG/DAY
2	Total Dry Garbage Generated		=	186.6 KG/DAY
3	Total Wet Garbage Generated		=	124.4 KG/DAY

ENVIRONMENT MANAGEMENT

Green Belt Development

- Combination of local trees and shrubs are planned within the project site.
- Total green belt provided at the site is 1158.72m (15.08% 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. 95 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. 65 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 m³/day recycles waste water generated at Proposed commercial project Ranchi Smart City plot 65 located at Village -Kachnartoli, Block – Namkum, District-Ranchi, State-Jharkhand.
3. An undertaking that 2757 KVA Power requirement in Proposed commercial project Ranchi Smart City plot 65 located at Village -Kachnartoli, Block – Namkum, District-Ranchi, State-Jharkhand.

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 'VLA', a large stylized 'B', a signature that looks like 'A', a signature that looks like 'CPR', a signature that looks like 'A', a signature that looks like 'A', and a signature that looks like 'M'. There are also some faint, illegible marks between the signatures.

Based on the presentation made and information provided, the Committee decided that the proposal for Proposed Commercial Project of M/s Malti Residency Infra Projects Private Limited at Ranchi Smart City Plot no. 65, Village :Kachnartoli, Block : Namkum, Distt. : Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I 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.

15. Proposed Residential Project of M/s Malti Residency Infra Projects Private Limited at Ranchi Smart City Plot no. 17, Mouza :Latma, Block : Namkum, Distt. : Ranchi, Jharkhand.

(Proposal No. : SIA/JH/INFRA2/418681 /2023).

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

This is a new project which has been taken for appraisal on 21.02.2023.

Project and Location Details :

Parameters	Description
Plot Area	22153.96 sq.m (2.21ha/5.47 acres).
Project Cost	INR 176 Crores
Built-up Area (@ 4 F.A.R)	89880.07 sq. m.
Green Area (@ 19.77 % of plot area)	4380.80.00sq m
Population	4001
Water Requirement	674KLD
Fresh Water Requirement	391 KLD
Wastewater Generation	521 KLD
STP Capacity	525 KLD
Total Municipal Waste	1484 kg/day
Power Requirement	Maximum power demand for the project during operation phase is estimated to be 3917.88 kVA respectively. Source of power will be Jharkhand State Electricity board. 1010 KVA of DG set will be provided as power back-up during power failure
DG Sets	1010 KVA
RWH Pits	10 no.
Parking Area	24139 sqm
Connecting road	Road adjacent to the site approx. 1.57 km W which is connected to Dhurwa Road
National Highway	NH 39, 3.38 km, SW SH 2, 15 km, N
Nearest Railway Station	Ranchi Junction Railway Station (7.20 km, NE)
Airport	Birsa Munda Airport (3.86 km, NE)
Nearest Hospitals	HEC plant Hospital (2.47 km, NW)
Nearest Water Bodies	<ul style="list-style-type: none"> • Dhurwa Dam (3.71 km, W) • Ranchi Lake (8.08 km, NE) • Kanke Dam (10.87 km, N) • Subernrekha River(2.70 km, SE)

CO-ORDINATES

Point	Latitude	Longitude
A	23°17'45.41"N	85°17'42.13"E
B	23°17'44.18"N	85°17'41.32"E
C	23°17'43.64"N	85°17'40.83 "E
D	23°17'43.12"N	85°17'37.43"E
E	23°17'42.11"N	85°17'37.43"E
F	23°17'42.24"N	85°17'41.72"E
G	23°17'41.31"N	85°17'49.15"E
H	23°17'41.74"N	85°17'49.14"E
I	23°17'45.96"N	85°17'43.48"E
J	23°17'46.20"N	85°17'42.97"E

LAND DETAILS

Khata no	Plot No.
103	1013
16	1021
128	1022
100	1023
51	1024
54	1025
6	1026
74	1027
107	1028
17	1099
13	1101
40	1103
40	1104
107	1105
95	1106
109	1107
135	1108

Area Summary :

Sl. no.	Description	Area (Sq m)
A.	Total plot area	22153.96
B.	Proposed Ground Coverage (@ 49.79% of plot area)	11030.46

C.	Proposed FAR @ 4	89880.07
D.	Non FAR area (Strain case, Lift, Balcony, Ramp, Accessory Use, Basement Parking)	27751.07
E.	Buil-up area (F+G)	1,17631.14
F.	Green Area (@ 19.77% of plot area)	4380.80
G.	Road area (25.14% of the plot area)	5569
H.	Paved area (5.32 % of plot area)	1178.97
I.	Height (m)	55 m
J.	No. of Dwelling units	670

STATUTORY CLEARANCES

1	DFO Forest Distance	:	DFO, Ranchi Forest division vide letter no.4273 dated 22.12.2018 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. 63, dated 20.01.2023 certified that proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
3	CO certificate	:	The CO, Namkum (Ranchi) vide vide letter no. 29(ii) dated 07.01.2019 has mentioned the plot no. of the project is not recorded as "Jangal Jhari" in Khatiyar.
4	AAI NOC	:	PAs has submitted the application vide application no. RANC/EAST /B/ 012323/738312 for height clearance from Airport authority of India.
5	Building Plan	:	Conceptual Plan submitted.

Water and waste water Requirement Details

TOTAL WATER DEMAND						
1	Domestic Water Demand (including swimming pool)	430,487	Liters	say	430	KLD
2	Flushing Water Demand (Flushing + landscaping)	233,855	Liters	say	234	KLD
Total Water Demand					665	Liters
WASTEWATER CALCULATIONS						
1	FLOW TO SEWER	520,765	Liters	say	521	KLD
2	STP CAPACITY		Liters	say	525	KLD

(D.G. sets operation period is 8 hrs.)

Table 6: Wastewater Calculations

Recovered water from STP (90% of Waste water)	469
1. Flushing	207
2. Landscaping	27
3. Fire Fighting	1
4. DG cooling	8
5. road washing/sewer	226

Solid Waste Requirement

S. No.	Description	Total No of Flats	Total Population	Total Waste Generated
1	EWS & LIG	187.00	850	297.5
2	WING 1	58.00	462	161.7
3	WING 2	58.00	462	161.7
4	WING 3	118.00	781	273.4
5	WING 4	118.00	811	283.9
6	WING 5	131.00	875	306.3
1	Total Garbage Generated		=	1,484
2	Total Dry Garbage Generated		=	890.61 KG/DAY
3	Total Wet Garbage Generated		=	593.74 KG/DAY

ENVIRONMENT MANAGEMENT

Green Belt Development

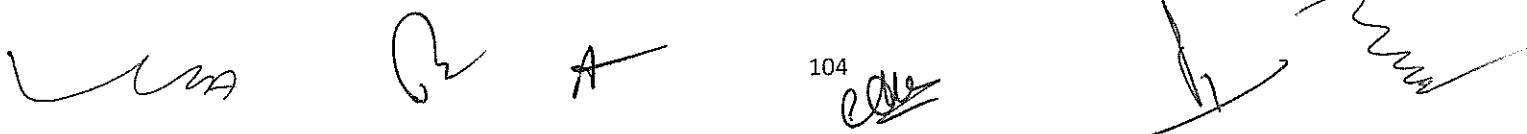
- Combination of local trees and shrubs are planned within the project site.
- Total green area provided at the site is 4380.80 sq m (19.77 % of the net plot area). which will enhance the beauty of the site and help combat air and noise pollution.
- The plant species will be selected on the basis of 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. 525 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. 391 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 1487 m³/day recycles waste water generated at Residential project Ranchi Smart City plot 17 located at Mauza – Latma, Block – Namkum, District-Ranchi, State-Jharkhand.
3. An undertaking that 3917.88 kVA Power requirement in Residential project Ranchi Smart City plot 17 located at Mauza – Latma, Block – Namkum, District-Ranchi, State-Jharkhand.

Based on the presentation made and information provided, the Committee decided that the proposal for Proposed Residential Project of M/s Malti Residency Infra Projects Private Limited at Ranchi Smart City Plot no. 17, Mouza :Latma, Block : Namkum, Distt. : Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I 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.



Day 3 : February 22nd, 2023 [Wednesday]

A. Deputy Commissioner, Godda or through authorized representative and M/s Sathi Planners Pvt. Ltd., Ranchi.

i. Draft District Survey Report (DSR) of Sand, Godda.

The DSR was submitted by Deputy Commissioner - cum – District Magistrate, Ranchi. He was represented by District Mining Officer, Godda Sri Meghlal Tuddu and Assistant Director, Geology, Dumka Sri Niraj Dhan at the SEAC meeting on 22.02.2023.

During the meeting the consultant M/s Sathi Planners Pvt. Ltd., Ranchi in the presence of DMO, Godda and Assistant Director, Geology, Dumka presented the DSR before the Committee. The observation of the Committee is that the following shortcomings are in the submitted DSR.

1. The basis of deciding the size of the Ghats is required to be detailed.
2. The photographs provided must display the date, time and location of the place where the photographs have been taken and the purpose of photographs.
3. The number of zones must be listed in a table alongwith the coordinates of the zone, the reference point and the details of Ghats in each zone.
4. The table providing the detail of the Ghats should also include the river on which the Ghat is located.
5. The Ghats have been categorized as category 1 & 2 Ghats. The criteria for this categorization is to be detailed in the DSR.
6. The distance from the bridges and highways have not been provided. The same should be provided alongwith the basis of the distance from the bridges and highways as required point no. 4.3 (h) at page no. 22 of EMGSM 2020.
7. The replenishment study should clearly specify the percentage of sand replenished for each proposed Ghats.
8. Details of flora & fauna found in aquatic bodies of the area to be included in the DSR report.
9. All annexures of EMGSM 2020 should be properly filled and included in the DSR.
10. Table providing the chronology of the work done is to be included in the DSR.

The DSR should be revised including the above shortcomings and submit the same for reconsideration.



16	Crusher	:	NA
17	Nearest Water Body	:	Ganga River, 16km NE
18	Nearest Habitation	:	Piprajora Village 0.7m - North, Presence of habitation in more than 500m
19	Nearest Rail Station	:	Nagarnabi at a distance of 2.5 km in NE
20	Nearest Air Port	:	Ranchi – 292 km – SW
21	Nearest Forest	:	NIL within 10 km
22	Road & Highways	:	NH 114 A – 6.1 KM North

CO-ORDINATES

Sl. No.	Latitude	Longitude
1	24°35'0.25"N	87°50'48.75"E
2	24°35'0.21"N	87°50'50.39"E
3	24°34'58.71"N	87°50'50.17"E
4	24°34'58.61"N	87°50'50.09"E
5	24°34'58.59"N	87°50'49.55"E
6	24°34'56.58"N	87°50'49.38"E
7	24°34'54.30"N	24°34'54.30"N
8	24°34'54.00"N	87°50'49.70"E
9	24°34'52.93"N	87°50'49.02"E
10	24°34'52.14"N	87°50'48.68"E
11	24°34'51.93"N	87°50'49.03"E
12	24°34'50.93"N	87°50'48.13"E
13	24°34'50.81"N	87°50'47.77"E
14	24°34'50.49"N	87°50'48.08"E
15	24°34'49.74"N	87°50'47.73"E
16	24°34'49.91"N	87°50'47.39"E
17	24°34'51.08"N	87°50'47.47"E
18	24°34'51.11"N	87°50'46.99"E
19	24°34'52.03"N	87°50'46.97"E
20	24°34'52.54"N	87°50'47.09"E
21	24°34'52.56"N	87°50'46.79"E
22	24°34'53.07"N	87°50'46.74"E
23	24°34'53.40"N	87°50'46.75"E
24	24°34'53.46"N	87°50'46.59"E
25	24°34'53.44"N	87°50'46.08"E
26	24°34'54.04"N	87°50'46.21"E
27	24°34'56.04"N	87°50'46.41"E

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28	24°34'56.88"N	87°50'46.65"E
29	24°34'58.84"N	87°50'46.93"E
30	24°34'58.95"N	87°50'47.03"E
31	24°34'58.75"N	87°50'48.36"E
32	24°34'59.95"N	87°50'48.75"E

LAND DETAILS

Mouza	Khata No.	Plot No.
Basmata	28	446, 447, , 449 & 450
	14	442 & 448
	06	377/P, 378 & 382
	24	375 & 376

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Office, Pakur vide letter no. 676/M dated 13.05.2020.
2	CO	:	The CO, Pakur vide letter no. 21/Ra, dated 08.01.2020 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Pakur vide memo no. 976/M, dated 24.06.2020 certified that four lease areas (6.37 acre, 3.13 acre, 5.44 acre & 4.094 acre) exist within 500 m radius from proposed project site & Total lease area is 9.71 Ha, i.e. more than 5 Ha.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 330, dated 10.02.2020 certified that the proposed project site is outside Eco Sensitive Zone of Udhawa Lake Bird Sanctuary.
5	DFO Forest Distance	:	DFO, Pakur Division vide letter no. 305, dated 04.02.2020 certified that the distance of reserved / protected forest is more than 250 metre from proposed project site.
6	DSR	:	The project is already mentioned in Page No. 72, Sl. No. 81 of District Survey Report (DSR) of Pakur.
7	Gram Sabha	:	Gram Sabha conducted on 30.11.2019
8	Mine Plan Approval	:	Deputy Director Mines, Santhal Pargana Circle, Dumka vide Memo No. 202/DDM dated 13.08.2020.
9	Public Hearing	:	JSPCB, Regional Office, Dumka vide letter no. 395, dated 31.01.2023 informed that Public Hearing conducted on 23.12.2022.

Working Details

1	Mining Method	:	Semi Mechanised. Wagon Drilling & Blasting to be used	
2	Quarry Area	:	5 years – 1.00 Ha	End of Mine – 1.31 Ha
3	Waste Generation	:	5 years– 9,790 Cu.M	Life of Mine (Waste Gen.) – 9,790 Cu.M
4	Stripping Ratio	:	1:0.07	
5	Working Days	:	300	
6	Benches: size & No	:	6 m x more than 6 , Bench No.- 1 to 3	
7	Elevation of Mine	:	Maximum Elevation – 98 AMSL Minimum Elevation – 95AMSL	
8	Ground Level Elevation	:	95 AMSL	
9	Ultimate Working Depth	:	78 AMSL	
10	Water Table	:	67 AMSL (28 m bgl)	
11	Topography of Mine	:	Undulating Terrain	
12	Explosive Requirement	:	16kg/day	
13	Diesel/Fuel requirement	:	126 KL/year (420 Litres/day)	

Production Details

Year	Production of Stone		Over Burden (OB)	Bench RL(m)
	Cubic meters	Tons	Cum.	
1st Year	35937	100624	3366	39-33
2nd Year	35960	100688	3190	39-33
3rd Year	35942	100638	3234	39-33 33-27
4th Year	35940	100632	0	33-27
5th Year	35916	100565	0	33-27 27-21
Total	179695	503147	9,790	Depth – 18 m

Land Use

Existing Land Use pattern

Category	Area in Ha.
Quarry	0.00
Safety Zone	0.00
Road	0.00
Total area in use	0.00

Balance area in used	2.00
Total applied area	2.00

Land Use Pattern after Proposed Plan Period of Five Years:

Category	Area in Ha.
Quarry including road	1.00
Safety Zone	0.66
O. B. Dump	0.01
Garland Drain with Settling Tank	0.02
Total area in use	1.69
Balance area in used	0.31
Total applied area	2.00

Land Use Pattern after Life of the Mine:

Category	Area in Ha.
Quarry including road	1.31 (To be Converted to Water Body after reducing the depth partially)
Safety Zone	0.66 (Plantation)
O. B. Dump	0.01 (Plantation)
Garland Drain with Settling Tank	0.02 (Plantation)
Total area in use	2.00
Balance area in used	0.00
Total applied area	2.00

ENVIRONMENT MANAGEMENT

**Green Belt
Development**

SL	LOCATION	Area/Length	No of Trees
1	Safety Zone	: 0.66 ha	1,650 trees @ 2500 trees per ha
2	Other Reclaimed Area	: 0.03 Ha.	75 trees @ 2500 trees per Ha.
3	Haul /Approach Road	: 0.80 KM	534 trees on both sides – 3 m distance

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road 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

A total of 9,790 cum of wastes (Over Burden) will be generated from entire Basmata Stone Mine up to conceptual stage. Year-wise waste generation during the planned period is given below:

Table 3.7: Generation of Waste during Planned Period

Year	Waste Generation, In Cum
1 st Year	3366
2 nd Year	3190
3 rd Year	3234
4 th Year	0
5 th Year	0
Total	9,790

Source: Mining Plan

Disposal of Waste from the Quarry

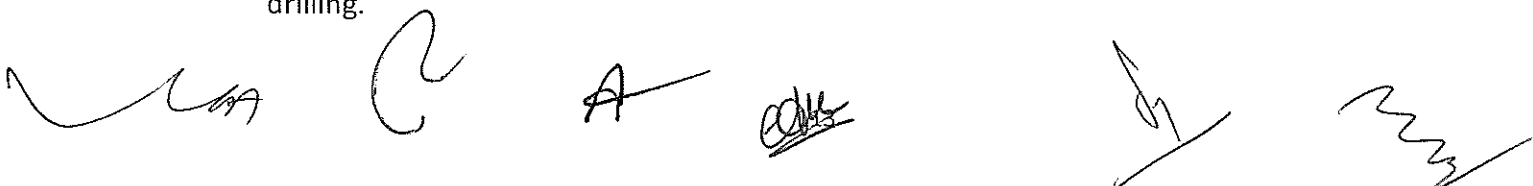
There is only 9,790 cum overburden will be generated in mining plan period which will be used in construction and maintenance of internal mine road and berm along the approach road.

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.
- 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.
- 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 is required permission should be taken from 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 Basmata Stone Mine of M/s Maa Durga Stone Works, Village :Basmata, Tehsil : Pakur, Distt. : Pakur, Jharkhand (2.00 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IV.

The bottom of the page features several handwritten signatures and initials. From left to right, there is a signature that appears to be 'Maa', a large 'B', a signature 'A', a signature with the number '114' written above it, a signature 'B', and a signature 'Maa'.

2. Basmata Stone Mine of Mr. Yar Mohammad, Mouza :Basmata, Thana no. : 112, P.S. :Pakur, Distt. : Pakur, Jharkhand (1.79 Ha).

(Proposal No. : SIA/JH/MIN/ 418705/ 2023).

Name of the consultant: Sathi Planners Pvt. Ltd., Ranchi.

This is a new project which has been taken for appraisal on 22.02.2023.

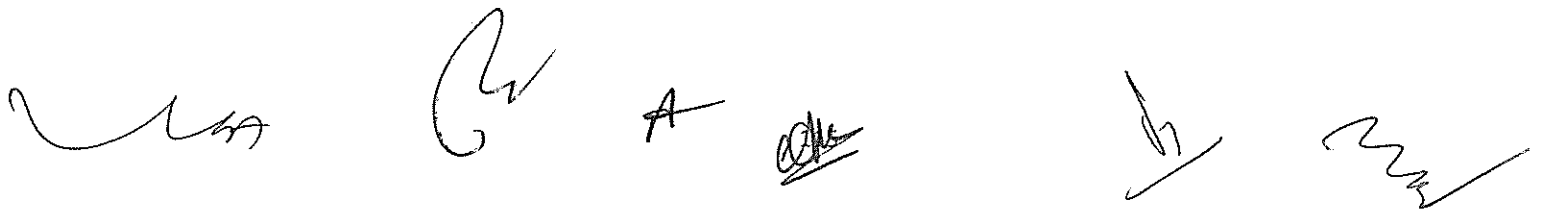
Project Category : The State Expert Appraisal Committee, Jharkhand deliberated the project during its 92nd meeting held on 20-23.10.2021 and SEIAA, Jharkhand has approved the ToRs in 93rd meeting held on 26th, 27th & 28th October, 2021. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2021-22/2451/2021/208, dated 30.10.2021. The final EIA / EMP submitted by PP to SEIAA on 18.02.2023 and which was forwarded to SEAC on 18.02.2023.

EC Application for : Boulder Stone : 37,917 Cu.M. / year i.e. 1,06,168 TPA

Name of the consultant : Sathi Planners Pvt. Ltd., Ranchi

Project and Location Details :

Sl	Parameter		Details
1	Project Name	:	Basmata Stone Mine Project Type – Stone Mine
2	Lessee:	:	Mr. Yar Mohammad
3	Lease Address	:	Mouza – Basmata, Block & P.S.- Pakur, Dist.- Pakur, Jharkhand
4	Lease Area	:	Ha: 1.79 ha Acres: 4.42 Acres
5	Type of Land	:	Non Forest – Rayati Land
6	Project Cost	:	Capital Cost – 78.55 Lakhs Recurring Cost – 8.60 Lakhs
7	EMP Budget	:	Capital: NA Recurring: NA
8	CSR / CER Budget	:	NA
9	New or Expansion	:	New Project
10	Mineable Reserves	:	Cu.M.: 3,78,612Cu. M. Tonnes: 10,60,114 Tonnes
11	Mine Life	:	10 years
12	Man power	:	19
13	Water Requirement	:	10.06 KLD (Drinking: 0.285 KLD, Dust Suppression: 2.10 KLD, Plantation: 7.677 KLD



14	Water Source	:	<ul style="list-style-type: none"> Water will be sourced from Bore Well (Inside the lease area) for Drinking Purpose. Water will be sourced from Abandon Mine at a distance of 1 Km from the lease area.
15	DG Set / power	:	20 KVA
16	Crusher	:	NA
17	Nearest Water Body	:	Ganga River 14.50 KM
18	Nearest Habitation	:	Basmata Village: 0.57 Km, Pakur 5.45 KM
19	Nearest Rail Station	:	Pakur 5.45 KM
20	Nearest Air Port	:	Malda Airport – 54 Km
21	Nearest Forest	:	Protected Forest - 1.20 Km
22	Road & Highways	:	NH 114 A – 5.90 KM; Malpahari Road – 0.35 KM

CO-ORDINATES :

Sl. No.	Latitude	Longitude
1	24° 35' 4.56" N	87° 51' 9.94" E
2	24° 35' 4.12" N	87° 51' 10.8" E
3	24° 35' 4.01" N	87° 51' 11.36" E
4	24° 35' 3.87" N	87° 51' 11.43" E
5	24° 35' 3.66" N	87° 51' 11.04" E
6	24° 35' 3.52" N	87° 51' 11.42" E
7	24° 35' 2.89" N	87° 51' 10.79" E
8	24° 35' 3.14" N	87° 51' 10.27" E
9	24° 35' 2.88" N	87° 51' 10.05" E
10	24° 35' 2.62" N	87° 51' 9.89" E
11	24° 35' 2.79" N	87° 51' 9.47" E
12	24° 35' 2" N	87° 51' 8.92" E
13	24° 35' 1.56" N	87° 51' 9.76" E
14	24° 35' 1.72" N	87° 51' 9.93" E
15	24° 35' 1.77" N	87° 51' 10.14" E
16	24° 35' 1.86" N	87° 51' 10.14" E
17	24° 35' 1.99" N	87° 51' 9.93" E
18	24° 35' 2.4" N	87° 51' 10.41" E
19	24° 35' 2.08" N	87° 51' 10.97" E
20	24° 35' 1.57" N	87° 51' 11.16" E
21	24° 35' 1.11" N	87° 51' 11.26" E
22	24° 35' 0.91" N	87° 51' 10.95" E

23	24° 35' 0.83" N	87° 51' 10.95" E
24	24° 35' 0.28" N	87° 51' 11.89" E
25	24° 34' 58.52" N	87° 51' 10.66" E
26	24° 34' 58.78" N	87° 51' 9.79" E
27	24° 34' 58.28" N	87° 51' 9.54" E
28	24° 34' 58.77" N	87° 51' 8.07" E
29	24° 34' 59.18" N	87° 51' 8.05" E
30	24° 34' 59.24" N	87° 51' 7.85" E
31	24° 34' 58.8" N	87° 51' 7.55" E
32	24° 34' 59.69" N	87° 51' 6.23" E
33	24° 34' 59.7" N	87° 51' 6.72" E
34	24° 34' 59.97" N	87° 51' 6.77" E
35	24° 34' 59.97" N	87° 51' 7.24" E
36	24° 34' 59.94" N	87° 51' 7.46" E
37	24° 34' 59.96" N	87° 51' 7.58" E
38	24° 35' 0.13" N	87° 51' 7.87" E
39	24° 35' 0.44" N	87° 51' 7.87" E
40	24° 35' 0.89" N	87° 51' 6.99" E
41	24° 35' 1" N	87° 51' 6.94" E
42	24° 35' 1.27" N	87° 51' 6.97" E
43	24° 35' 1.39" N	87° 51' 7" E
44	24° 35' 1.56" N	87° 51' 7" E
45	24° 35' 1.56" N	87° 51' 6.76" E
46	24° 35' 1.69" N	87° 51' 6.81" E
47	24° 35' 1.88" N	87° 51' 6.84" E
48	24° 35' 2.02" N	87° 51' 6.81" E
49	24° 35' 2.19" N	87° 51' 6.81" E
50	24° 35' 2.46" N	87° 51' 6.94" E
51	24° 35' 2.53" N	87° 51' 7.03" E
52	24° 35' 2.65" N	87° 51' 7.05" E
53	24° 35' 2.98" N	87° 51' 7.05" E
54	24° 35' 3.23" N	87° 51' 7.16" E
55	24° 35' 3.43" N	87° 51' 7.26" E
56	24° 35' 3.48" N	87° 51' 7.26" E
57	24° 35' 3.58" N	87° 51' 7.23" E
58	24° 35' 3.63" N	87° 51' 7.52" E
59	24° 35' 3.6" N	87° 51' 7.63" E
60	24° 35' 3.55" N	87° 51' 7.72" E
61	24° 35' 3.55" N	87° 51' 7.81" E
62	24° 35' 3.58" N	87° 51' 7.83" E
63	24° 35' 3.68" N	87° 51' 7.83" E
64	24° 35' 3.77" N	87° 51' 7.91" E

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65	24° 35' 3.77" N	87° 51' 8.04" E
66	24° 35' 3.86" N	87° 51' 8.24" E
67	24° 35' 3.61" N	87° 51' 8.57" E
68	24° 35' 3.61" N	87° 51' 8.65" E
69	24° 35' 3.82" N	87° 51' 8.8" E
70	24° 35' 3.82" N	87° 51' 8.84" E
71	24° 35' 3.98" N	87° 51' 9" E
72	24° 35' 4" N	87° 51' 9.05" E
73	24° 35' 4" N	87° 51' 9.14" E
74	24° 35' 3.87" N	87° 51' 9.22" E
75	24° 35' 3.89" N	87° 51' 9.33" E
76	24° 35' 4.11" N	87° 51' 9.49" E
77	24° 35' 4.27" N	87° 51' 9.49" E
78	24° 35' 4.47" N	87° 51' 9.88" E

LAND DETAILS :

Khata No.	Plot No.
25	242 P, 243
22	223, 225, 224, 226
14	244, 246, 227
27	229, 240, 238 P
12	232 P, 222, 233 P
24	247, 248, 249 P, 250 P
20	258 P
06	228, 239, 245, 257

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Office, Pakur vide letter no. 543/M dated 21.03.2020
2	CO	:	The CO, Pakur vide letter no. 20/Ra, dated 08.01.2020 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyan & Register II.
3	DMO	:	DMO, Pakur vide memo no. 978/M, dated 24.06.2020 certified that 02 leases (7.43 acre & 6.37 acres) exist within 500 m radius from proposed project site & Total lease area is 7.38 Ha.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 332, dated 18.02.2020 certified that the proposed project site is outside Eco Sensitive Zone of Udhawa Lake Bird

			Sanctuary.
5	DFO Forest Distance	:	DFO, Pakur Forest Division vide letter no. 303, dated 04.02.2020 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. 71 of District Survey Report (DSR) of Pakur.
7	Gram Sabha	:	BDO, Pakur vide letter no. 2045/Vi, dated 26.10.2019 informed that Gram Sabha conducted on 26.10.2019.
8	Mine Plan Approval	:	Deputy Director Mines, S.P. Circle, Dumka vide memo no. 198/ DDM, dated 13.08.2020.
9	Public Hearing	:	JSPCB, Regional Office, Dumka vide letter no. 395, dated 31.01.2023 informed that Public Hearing conducted on 23.12.2022.

Working Details :

1	Mining Method	:	Semi Mechanised. Jack Hammer Drilling, Wagon Drilling & Blasting to be used	
2	Quarry Area	:	5 years – 0.86 Ha	End of Mine – 1.36 Ha
3	Waste Generation	:	5 years– 7,943 Cu.M	Life of Mine (Waste Gen.) – 7,943Cu.M
4	Stripping Ratio	:	1:0.02	
5	Working Days	:	300	
6	Benches: size & No	:	6 m x 6 m, 3 benches	
7	Elevation of Mine	:	Maximum – 96.16 AMSL Minimum - 95.16 AMSL	
8	Ground Level Elevation	:	95.16 AMSL	
9	Ultimate Working Depth	:	72.16 AMSL	
10	Water Table	:	67.16 AMSL (28 m bgl)	
11	Topography of Mine	:	Flat Terrain	
12	Explosive Requirement	:	6 Tons/year	
13	Diesel/Fuel requirement	:	407 KL/year (122 Litres/day)	

Production Details

Year	Production of Stone	Over Burden (OB)	Bench RL in meters
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	Cubic meters	Tons	Cum.	
1st Year	37,842	105,958	3,774	39-33
2nd Year	37,917	106,168	2,673	39-33
3rd Year	37,840	105,952	1,496	33-27
4th Year	37,890	106,092	Nil	33-27
5th Year	37,908	106,142	Nil	27-21
Total	189,397	530,312	7,943	Depth- 18 m

Land Use

Existing Land Use pattern

Category	Area in Hectares
Quarry	0.00
Road	0.00
Total area in use	0.00
Balance area unused	1,79
Total Leasehold area	1.79

Proposed Land Use for Current Plan Period

Category	Area in Hectares
Quarry	0.86
Dump	0.01
Mining Road	0.01
Green Belt / Safety Zone	0.50
Garland Drain	0.01
Total area in use	1.39
Unutilized	0.40
Total Leasehold area	1.79

Land Use pattern at the Conceptual Stage i.e. end of mine

Category	Area in Hectares
-----------------	-------------------------

Quarry	Water body 1.26 (To be Converted to Water Body after reducing the depth partially)
Green Belt/ Safety Zone	0.50 (Plantation)
Dump + Road + Garland Drain	0.03 (Plantation)
Total Leasehold area	1.79

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	Location		Area/Length	No of Trees
1	Safety Zone	:	0.40 ha	1000 trees @ 2500 trees per ha
2	Other Reclaimed Area	:	0.53 Ha.	1,325 trees @ 2500 trees per Ha.
3	Haul /Approach Road	:	0.35 KM	234 trees on both sides – 3 m distance

- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road 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.

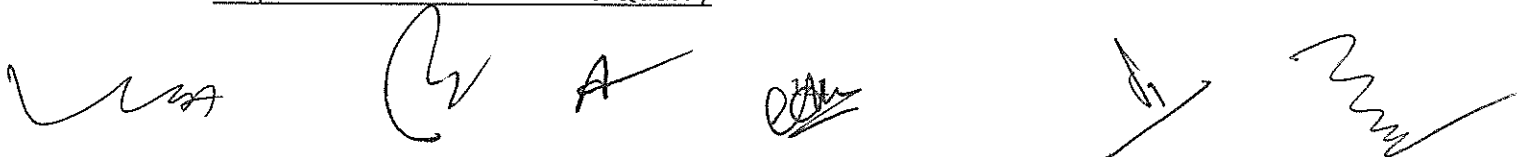
Solid Waste Management

- A total of 7,943 Cum of wastes (Over Burden) will be generated from entire Basmata Stone Mine up to conceptual stage. Year-wise waste generation during the planned period is given below:

Generation of Waste during Planned Period

Year	Waste Generation, In Cum
1 st Year	3,774
2 nd Year	2,673
3 rd Year	1,496
4 th Year	Nil
5 th Year	Nil
Total	7,943

Disposal of Waste from the Quarry



Over burden will be dumped in the waste dump within the mining lease area in 0.6 Ha. waste dump area inside the lease. OB will be utilized for mine road construction & berm along the mine haul road.

Water Quality Management

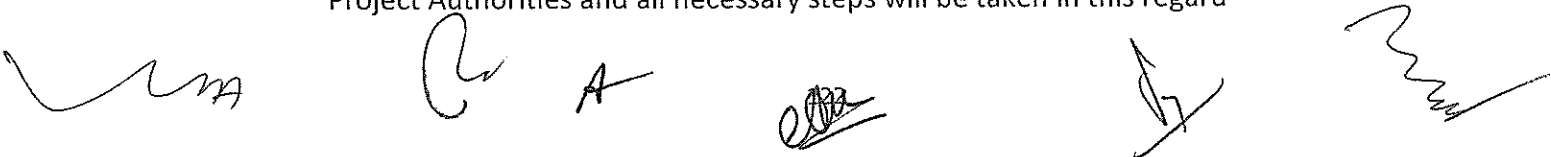
- Mining is planned to above the ground water table. In case any intersection is likely, mining activities will be stopped 2m above the Ground Water Table.
- The rain water during rainy season will be collected in a pit and shall be use for dust suppression and plantation. Excess water, if any shall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

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- 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 is required permission should be taken from 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 Basmata Stone Mine of Mr. Yar Mohammad, Mouza : Basmata, Thana no. : 112, P.S. :Pakur, Distt. : Pakur, Jharkhand (1.79 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IV.

3. Bishunpur Stone Mine of M/s Otan Das & Company (Mining) Pvt. Ltd., Mouza : Bishunpur, Thana No. : 44, P.S. :Pakur, Distt. : Pakur, Jharkhand (2.20 Ha).

(Proposal No. : SIA/JH/MIN/417644/2023).

Name of the consultant: Sathi Planners Pvt. Ltd., Ranchi.

This is a new project which has been taken for appraisal on 22.02.2023.

Project Category : The State Expert Appraisal Committee, Jharkhand deliberated the project during its 93rd meeting held on 18-27.02.2022 and SEIAA, Jharkhand has approved the ToRs in 94th meeting held on 13th, 14th & 15th April, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2021-22/2549/2021/50, dated 16.04.2022. The final EIA / EMP submitted by PP to SEIAA on 18.02.2023 and which was forwarded to SEAC on 18.02.2023.

Applied Area: 5.44 Acres (2.20 Ha)

EC Application for: Stone : 4,13,946 TPA ~ 1,42,740 m³/yr;

Waste : 42480 cum waste generate during plan period.

DG Set : 20 KVA DG Set proposed

Crusher : Not Proposed

CO-ORDINATES

Point	Latitude	Longitude
1	24°36'31.46" N	87°49'07.59" E
2	24°36'31.51" N	87°49'06.09" E
3	24°36'31.02" N	87°49'05.72" E
4	24°36'31.08" N	87°49'04.75" E
5	24°36'31.05" N	87°49'03.24" E
6	24°36'33.07" N	87°49'04.08" E
7	24°36'34.78" N	87°49'04.87" E
8	24°36'37.28" N	87°49'05.58" E
9	24°36'38.76" N	87°49'06.08" E
10	24°36'38.90" N	87°49'05.53" E
11	24°36'40.09" N	87°49'05.91" E
12	24°36'40.08" N	87°49'06.81" E
13	24°36'39.81" N	87°49'07.72" E
14	24°36'39.11" N	87°49'07.81" E
15	24°36'38.99" N	87°49'09.44" E
16	24°36'38.53" N	87°49'09.54" E
17	24°36'38.38" N	87°49'08.70" E
18	24°36'38.02" N	87°49'08.67" E
19	24°36'38.01" N	87°49'09.19" E
20	24°36'36.30" N	87°49'08.91" E
21	24°36'35.82" N	87°49'08.57" E
22	24°36'35.71" N	87°49'08.19" E
23	24°36'33.60" N	87°49'08.07" E

Land Details

Mouza	Khata No.	Plot No.
Bishunpur	8	915, 916, 917, 918, 919, 920, 921, 936, 937, 938, 939, 940, 1044 (P)
	37	941, 942, 947

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Office, Pakur vide letter no. 2035 /M, dated 17.11.2020.
2	CO	:	The CO, Pakur vide letter no. 131/Ra, dated 17.02.2020 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Pakur vide memo no. 188/M, dated 20.02.2021 certified that 05 other lease area (6.83 acre, 8.25 acre, 5.18 acre, 2.00 acre & 10.50 acre) exists within 500 m radius from proposed project site and total area is 38.20 acre (15.46 Ha).
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 108 , dated 10.01.2020 certified that the proposed project site is outside Eco Sensitive Zone of Udhawa Lake Bird Sanctuary.
5	DFO Forest Distance	:	DFO, Pakur Division vide letter no. 840, dated 22.05.2020 certified that the distance of reserved / protected forest is more than 250 metre from proposed project site.
6	DSR	:	The DC-cum-District Magistrate, Pakur vide letter no. 878/ M, dated 21.06.2021 has informed that this project is part of District Survey Report (DSR) of Pakur district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Pakur vide letter no. 403/Vi, dated 07.03.2020 informed that Gram Sabha conducted on 03.03.2020.
8	Mine Plan Approval	:	Additional Director, Geology, Hazaribag vide Letter No. 51/G dated 15.02.2022
9	Public Hearing	:	JSPCB, Regional Office, Dumka vide letter no. 2437, dated 30.12.2022 informed that Public Hearing conducted on 04.11.2022

WORKING DETAILS

1	Mining Method	:	Opencast Mechanized Mining
2	Quarry Area	:	5 years– 1.48 ha Life of Mine – 1.50 ha
3	Waste Generation	:	5 years– 42,480 Cum Life of Mine – 42,480 Cum
4	Stripping Ratio	:	1:0.02
5	Working Days	:	300 days/year
6	Bench: size & No	:	5m x 5m
7	Elevation of Mine	:	In 112 MSL to 110 MSL
8	Ground Level	:	In 110 MSL

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	Elevation		
9	Ultimate Working Depth	:	In 82 MSL
10	Water Table	:	In 81 MSL and also 29 m bgl
11	Topography of Mine	:	Undulating
12	Explosive Requirement	:	Yes- No. of holes: 8/day; Explosive: Slurry- 66.8 Kg/Day
13	Diesel/Fuel requirement	:	Diesel required only for Mining machinery operation and Tippers/trucks for transportation.

PRODUCTION DETAILS

Year	Production of Stone		Over Burden (OB)	Bench RL in meters
	Cubic meters	Tons	Cubic meters	
1st Year	1,34,640	3,90,456	24840	57 – 56 (O.B.) 56 – 47 (Stone)
2nd Year	1,36,440	3,95,676	17640	56 – 55 (O.B.) 52 – 45 (Stone)
3rd Year	1,34,640	3,90,456	0	52- 42 (Stone)
4th Year	1,42,740	4,13,946	0	47 – 42 (Stone)
5th Year	1,34,640	3,90,456	0	42 – 37 (Stone)
Total	6,83,100	19,80,990	42,480	Depth- 20 m

LAND USE

Existing Land Use pattern

Category	Area in Hectares
Quarry	0.00
Road	0.00
Total area in use	0.00
Balance area unused	2.20
Total Leasehold area	2.20

Proposed Land Use for Current Plan Period

Category	Area in Hectares
Quarry	1.48
Dump	0.01
Mining Road	0.02
Road	0.02
Garland Drain/ Safety zone/	0.58

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Settling Tank	
Total area in use	2.11
Unutilized	0.09
Total Leasehold area	2.20

Land Use pattern at the Conceptual Stage i.e. end of mine

Category	Area in Hectares
Quarry+ mining road	1.50 Water Body – 1.50 Ha. (To be Converted to Water Body after reducing the depth partially)
Garland Drain/ Safety Zone/ Settling Tank	0.58 (Plantation)
Dump + office	0.03 (Plantation)
Total area in use	2.11
Unutilized	0.09
Total Leasehold area	2.20

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION	Area/Length	No of Trees
1	Safety Zone	: 0.58 Ha	1450
2	Other Reclaimed Area	: 0.03	75
3	Haul /Approach Road	: 1700 meter	1134 Tree 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

A total of 42,480 Cum. of wastes (Over Burden) will be generated from entire Bishunpur Stone Mine up to conceptual stage will be dumped in the waste dump within the mining lease area in 0.02 Ha. waste dump area inside the lease. OB will be utilized for internal mine road construction & berm along the approach road construction & maintenance.

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Water Pollution Control Measures:

- Negligible impact envisaged on surface water and ground water due to mining as no discharge of effluent or intersection of ground water.
- No major surface water body within 1 km radius of the project site.
- Garland drain & settling tank will be constructed around dump for arresting run-off, it will be integral part of rainwater harvesting system.
- 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:

- Water sprinkling shall be done on the haul roads.
- Plantation to be done in the safety zone develop a green belt along the ML boundary.
- Sharp drill will be used and wet drilling will be followed.
- Controlled blasting- Nonel technology will be used.
- Overloading will be prohibited while transporting. Water sprinkling will be taken up.
- Plantation along transportation route will be done.
- 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 road side 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 will be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling is required permission should be taken from 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 Bishunpur Stone Mine of M/s Otan Das & Company (Mining) Pvt. Ltd., Mouza :Bishunpur, Thana No. : 44, P.S. :Pakur, Distt. : Pakur, Jharkhand (2.20 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IV.



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4. Guhiyapal Stone Deposit of M/s Aditya Aggregates, Village :Guhiyapal, Circle : Baharagora, P.S. : Ghatsila, Distt. : East Singhbhum, Jharkhand (0.959 Ha).

(Proposal No. : SIA/JH/MIN/415809/2023).

Applied Area :2.37 Acres (0.959 Ha)

Project Category :B2 – Application for Environment Clearance

EC Application for : 26994.50 cum. / year (max)

Overburden : 8090 m³ during plan period.

DG Set : 20 KVA

Crusher – Not proposed

Name of the Sathi Planners Private Limited

This is a newproject which has been taken for appraisal on 22.02.2023.

Project and Location Details :

Sl.	Parameter	Details	
1	Project Name	: Guhiyapal Stone Deposit	
2	Lessee:	: M/S Aditya Aggregates, Partner- Mr. Yalamanchi Jaydev	
3	Lease Address	: Village – Guhiyapal, Circle- Baharagora & P.S. – Ghatsila, Dist. – East singbhum, State – Jharkhand.	
4	Lease Area	: Ha:0.959	Acres: 2.37
5	Type of Land	: Non-Forest – Rayati Land	
6	Project Cost	: Rs. 85.31 Lakhs	
7	EMP Budget	: Capital: Rs. 16.515 Lakhs	Recurring: Rs. 1.69Lakhs/ year
8	CSR / CER Budget	: Rs. 2,00,000/-	
9	New or Expansion	: New	
10	Mineable Reserves	: Cu.M.:1,34,755 .	Tonnes:3,36,887.50
11	Mine Life	: 5 years only	
12	Manpower	: 17 Person	
13	Water Requirement	: 23.76 KLD (Drinking:0.25 KLD, Dust Suppression: 18.6 KLD, Plantation: 4.905 KLD)	
14	Water Source	: Water Tanker	
15	DG Set / power	: 20 KVA	
16	Crusher	: Not Applicable	
17	Nearest Water Body	: Subarnarekha River at 0.34 km West Direction	
18	Nearest Habitation	: Guhiyapal 0.66 km N direction from the mine site.	
19	Nearest Rail Station	: KokparaRailway Station 20 km North direction from the mine site.	
20	Nearest Airport	: BirsaMunda Airport, Ranchi 178 km NW direction from the mine site.	
21	Nearest Forest	: More than 250 m, as per Jamshedpur forest division. Letter no – 1532 Dt- 19.07.2022	

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22	Road & Highways	:	NH - 18 at 4km West direction from the mine site.
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CO-ORDINATES

Geo-Coordinates of all corner points of Demarcated Block Boundary (GPS Co-ordinates) Datum: WGS 84		
Corner Point	Latitude	Longitude
1	22°17'31.89"N	86°39'51.82"E
2	22°17'32.84"N	86°39'55.54"E
3	22°17'27.82"N	86°39'53.16"E
4	22°17'28.71"N	86°39'49.37"E

LAND DETAILS

The lease area is situated near Duari

Khata No.	Plot No.
100	1393, 1399
282	1397
220	1391, 1394, 1398

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (Lol) has been issued by DMO, East Singbhum, Jamshedpur vide letter no.- 963/M, dated 28.11.2022.
2	CO Certificate	:	CO, Bahragora vide letter no. : 617, Dated- 29.08.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyam & Register II.
3	DMO Certificate	:	DMO, East Singbhum, Jamshedpur vide letter no. : 1010/Khanan, Dated 08.12.2022 certified that no other lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Dalma Elephant Project vide letter no. 1306, Dated 10.09.2022 certified that the certified that the proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary. The additional comments given by the DFO, Dalma Elephant Project is not appropriate.
5	DFO Territorial	:	DFO, Jamshedpur Forest Division vide letter no.- 1532, Dated- 19.07.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The District Magistrate -cum- Deputy Commissioner, East Singbhum, Jamshedpur vide letter no. 30/Khanan, dated 05.01.2023 has informed that this project is part of District Survey

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		Report (DSR) of East Singhbhum district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	: BDO, Baharagora vide letter no. : 932, dated 07.09.2022 informed that Gram Sabha conducted on 07.09.2022.
8	Mine Plan Approval	: District Mining Office, Gumla vide letter no. : 133/ M, dated 01.02.2023.

WORKING DETAILS

1	Mining Method	: Opencast Semi Mechanized Mining
2	Quarry Area	: 5 years-0.553 Ha. Life of Mine – 0.553 Ha.
3	Waste Generation	: 8090 cum Life of Mine –8090
4	Stripping Ratio	: 1:0.01
5	Working Days	: 300 days/year
6	Benches: size & No	: 6m x 5m
7	Elevation of Mine	: In 138 AMSL to 133 AMSL
8	Ground Level Elevation	In 130 AMSL
9	Ultimate Working Depth	: In 106 AMSL
10	Water Table	: In 92 AMSL and
11	Topography of Mine	: Gently sloping area
12	Explosive Requirement	: 9 tons Per year
13	Diesel/Fuel requirement	: 296litre per day

PRODUCTION DETAILS

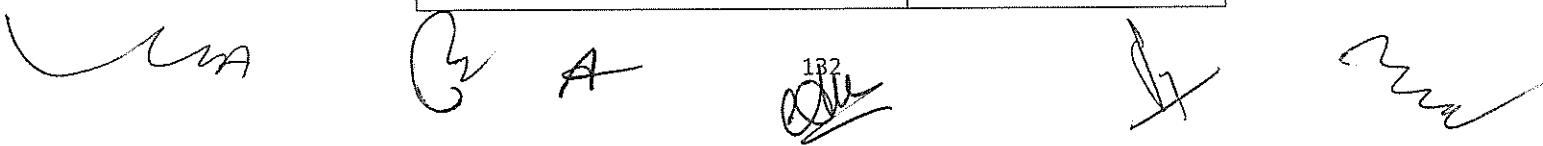
Year	Production of Stone		Removal of Soil
	Cum	Tonnes	Cum
1 st Year	26,975	67437.50	4875
2 nd Year	26994.50	67486.25	0
3 rd Year	26994.50	67486.25	0
4 th Year	26975	67437.50	1235
5 th Year	26816	67040.00	1980
Total	134755	336887.50	8090

LAND USE

Existing & Proposed Land Use Pattern

Existing Land Use pattern

Category	Area in Hectares
Quarry	0.00



Road	0.00
Total area in use	0.00
Balance area unused	0.959
Total Leasehold area	0.959

Proposed Land Use for Current Plan Period

Category	Area in Hectares
Quarry	0.553
Green Belt / Safety Zone	0.406
Total area in use	0.959
Total Leasehold area	0.959

Land Use pattern at the Conceptual Stage i.e. end of mine

Category	Area in Hectares
Quarry	0.553 (Water reservoir)
Green Belt/ Safety Zone	0.406 (Plantation)
Total area in use	0.959
Total Leasehold area	0.959
Plantation	0.406 (42.34 % of area)

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION	Area/Length	No of Trees
1	Safety Zone	: 0.406 Ha	1015
2	Other Reclaimed Area	: 0.000	000
3	Haul /Approach Road	: 930 meters	620Tree 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 &

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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 8090 cum during the 1st, 4th and 5th year plan period. The O.B. shall be used for backfilling in the end of life of mine of the mining operation.

Water Pollution Control Measures:

- Mining operation will be restricted to the depth of 30m from surface level.
- Quality of dug well will be monitored, in order to ensure the quality of water is not affected.

Air and Noise Pollution Control Measures:

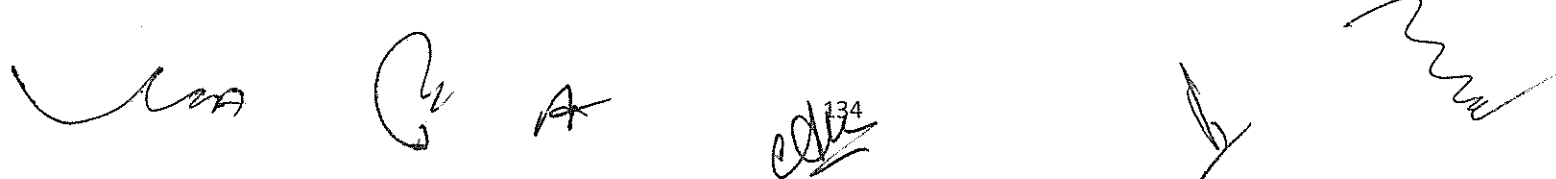
- Dust suppression measures like spraying / sprinkling of water to keep the surface wet.
- Overloading of the truck / tractor trolleys will not be done.

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

1. Carts or tractor-trolleys will be developed on village roads.
2. Tractors-trolleys 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 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.

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9	New or Expansion	:	New
10	Mineable Reserves	:	Cu.M.: 2,97,565 Tonnes:7,43,912.50
11	Mine Life	:	10 years only
12	Manpower	:	17 Person
13	Water Requirement	:	21.49 KLD (Drinking:0.25 KLD, Dust Suppression: 16 KLD, Plantation: 5.24 KLD)
14	Water Source	:	Through water tankers
15	DG Set / power	:	20 KVA
16	Crusher	:	Not Applicable
17	Nearest Water Body	:	Subarnarekha river at 1.5 km West Direction
18	Nearest Habitation	:	Charakmara 0.88 km N direction from the mine site.
19	Nearest Rail Station	:	Rajalukha Railway Station 17 km South direction from the mine site.
20	Nearest Airport	:	BirsaMunda Airport, 178 km NW direction from the mine site.
21	Nearest Forest	:	More than 250 m, as per forest division. Letter no – 1531 Dt- 19/07/2022
22	Road & Highways	:	NH- 18 at 3.6 km in East direction from the mine site.

CO-ORDINATES

Geo-Coordinates of all corner points of Demarcated Block Boundary (GPS Co-ordinates) Datum: WGS 84		
Corner Point	Latitude	Longitude
1	22°16'57.54"N	86°40'36.96"E
2	22°18'56.85 "N	86°40'41.25"E
3	22°16'54.82"N	86°40'41.40"E
4	22°16'52.49"N	86°40'39.61"E
5	22°16'50.67"N	86°40'38.78"E
6	22°16'50.91"N	86°40'37.54"E
7	22°16'53.37"N	86°40'36.52"E

LAND DETAILS

The lease area is situated near Mouza Charakmara

Khata No.	Plot No.
123	1327
324	1324, 1325, 1326

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, East Singhum, Jamshedpur vide letter no. 964/M, dated 28.11.2022.
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2	CO Certificate	:	CO, Bahragora vide letter No. 616, dated 29.08.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar & Register II.
3	DMO Certificate	:	DMO East Singhbhum, Jamshedpur vide letter no. 1009/Khanan, dated 08.12.2022 certified that no other lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Dalma Elephant Project vide letter no.- 1313, dated 10.09.2022 certified that the certified that the certified that the proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary. The additional comments given by the DFO, Dalma Elephant Project is not appropriate.
5	DFO Territorial	:	DFO Jamshedpur Forest Division vide letter no.- 1531 dated 19.07.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The District Magistrate -cum- DC, East Singhbhum, Jamshedpur vide letter no. 30/Khanan, dated 05.01.2023 has informed that this project is part of District Survey Report (DSR) of East Singhbhum district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Baharagora vide letter no. : 933, dated 07.09.2022 informed that Gram Sabha conducted on 07.09.2022.
8	Mine Plan Approval	:	DMO, Gumla vide letter no. : 132/ M, dated 01.02.2023.

WORKING DETAILS

1	Mining Method	:	Opencast Semi Mechanized Mining
2	Quarry Area	:	5 years-0.852 ha Life of Mine – 1.355
3	Waste Generation	:	Only in first 3 years- 10064cum Life of Mine –10064
4	Stripping Ratio	:	1:0.05
5	Working Days	:	300 days/year
6	Benches: size & No	:	6m x 5m
7	Elevation of Mine	:	138 – 133 AMSL
8	Ground Level Elevation	:	In 133 AMSL
9	Ultimate Working Depth	:	In 76 AMSL
10	Water Table	:	In 98 MSL and
11	Topography of Mine	:	Gently sloping area

12	Explosive Requirement	:	9.7 tons Per year
13	Diesel/Fuel requirement	:	320 litre per day (96 KL/year)

PRODUCTION DETAILS

Year	Production of Stone		Removal of Soil
	Cum	Tonnes	Cum
1 st Year	30000.00	75000.00	3840.00
2 nd Year	29999.94	74999.85	3224.00
3 rd Year	30000.00	75000.00	3000.00
4 th Year	30000.00	75000.00	-
5 th Year	29999.80	74999.50	-
Total	149999.74	374999.35	10064.00

LAND USE

Existing Land Use pattern

Category	Area in Hectares
Quarry	0.00
Road	0.00
Total area in use	0.00
Balance area unused	1.84
Total Leasehold area	1.84

Proposed Land Use for Current Plan Period

Category	Area in Hectares
Quarry	0.852
Green Belt / Safety Zone	0.485
Waste Dump	0.160
Road	0.068
Total area in use	1.565
Unused Area	0.275
Total Leasehold area	1.840

Land Use pattern at the Conceptual Stage i.e. end of mine

Category	Area in Hectares
Quarry	1.355 (Water Body)

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Green Belt/ Safety Zone	0.485 (Plantation)
Total area in use	1.840
Total Leasehold area	1.840

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION		Area/Length	No of Trees
1	Green Belt/Safety Zone	:	0.485 Ha	1213
2	Other Reclaimed Area	:	0.000	000
3	Haul /Approach Road	:	800meters	533Tree 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 10064 cum during the 1st, 2nd and 3rd year of plan period. O.B.Dump area is 0.160ha. The O.B. shall be used for backfilling in the end of life of mine of the mining operation.

Water Pollution Control Measures:

- Mining operation will be restricted to the depth of 30m from surface level.
- Quality of dug well will be monitored, in order to ensure the quality of water is not affected.

Air and Noise Pollution Control Measures:

- Dust suppression measures like spraying / sprinkling of water to keep the surface wet.
- Overloading of the truck / tractor trolleys 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 tractor-trolleys will be developed on village roads.

2. Tractors-trolleys 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 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.

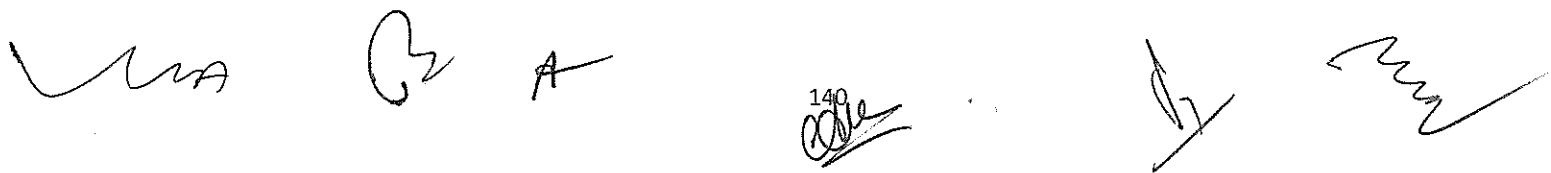
Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Charakmara Stone Deposit of M/s Singh Transport Services (Prop. :Shri Dhirendra Kumar Singh), Mouza : Charakmara, Circle : Baharagora, Distt. : East Singhbhum, Jharkhand (1.84 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IV.

6. Tangarjora Stone Deposit of M/s Kolhan Infrastructure Pvt. Ltd., Village : Tagarjora, Thana : Rajnagar, Distt. : Saraikela-Kharsawan, Jharkhand (2.877 Ha).

(Proposal No. : SIA/JH/MIN/419114/2023).

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

This is a new project which has been taken for appraisal on 22.02.2023.

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Project and Location Details :

Sl	Parameter	Details
1	Project Name	: Tangarjora Stone Deposit
2	Lessee:	: Kolhan Infrastructure Private Limited (Director- Shri Chiranjevi Kuchi),
3	Lease Address	: Kolhan Infrastructure Private Limited (Director- Shri Chiranjevi Kuchi), S/O Sri Sundaraiah Nagulavellatur Chejaria, Nellore, Andhra Pradesh- 524343
4	Lease Area	: 2.877 ha Acres- 7.11 Acres
5	Type of Land	: Non Forest – Raiyati Land
6	Project Cost	: Rs. 50 Lakhs
7	EMP Budget	: Capital: 9.021 Lakhs Recurring: 3.27 Lakh / year
8	CSR / CER Budget	: Rs. 1.0 Lakhs
9	New or Expansion	: New
10	Mineable Reserves	: cum.: 499460 cum Tonnes: 1348542 tons
11	Mine Life	: 5.0 years
12	Man power	: 25
13	Water Requirement	: 5.93 ~ 6.0 KLD(Drinking: 0.25 KLD, Dust Suppression: 1.14 KLD, Plantation: 4.54 KLD)
14	Water Source	: From Nearby villages by tankers
15	DG Set / power	: 100 KVA
16	Crusher	: No
17	Nearest Water Body	: Bhangbanga Nadi Approx 1.90 km towards W direction Kharkhai River Approx 9.0 km towards WNW direction Garra Nadi Approx 8.0 km towards WSW direction of mine site.
18	Nearest Habitation	: Tangarjora village, at 320 meters
19	Nearest Rail Station	: Haludpukur Junction Railway station, approx. 7.50 km towards SSE direction.
20	Nearest Airport	: Birsa Munda Airport Ranchi, approx. 109 km towards NW direction.
21	Nearest Forest	: Nandup Protected Forest Approx. 8.5 km towards NE direction of mine site. Kudada Protected Forest Approx. 6.0 km towards NE direction. Morchagora Protected Forest Approx 9.0 km towards ENE direction of mine site.
22	Road & Highways	: NH- 220 Approx. 4.80 km. in South direction. SH- 6 Approx. 5.30 km. in East direction



CO-ORDINATES

1	Latitude	From 22°39'58.15" N	To 22°40'08.27" N
2	Longitude	From 86°07'16.99" E	To 86°07'25.01" E

LAND DETAILS

Sl. no.	Khata no.	Plot no.
1.	13	817, 819, 844, 845 & 847
2.	53	820 (P) & 846 (P)

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The LOI has been issued by District Mining Office, Saraikela-Kharsawan vide letter no. 39/M dated 24.01.2023.
2	CO	:	The CO, Rajnagar vide letter no. 171, dated 20.02.2023 has mentioned the plot no. of the project is not recorded as "Jangal Jhari" in Khatiyon.
3	DMO	:	DMO, Saraikela-Kharsawan vide letter no. 55/M, dated 01.02.2023 certified that no other lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Dalma Elephant Project vide letter no. 1805, dated 13.12.2022 certified that the proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary. The additional comments given by the DFO, Dalma Elephant Project is not appropriate.
5	DFO Forest Distance	:	DFO, Saraikela Forest Division vide letter no. 2444, dated 09.12.2022 certified that the distance of notified forest is more than 250 m from proposed project site.
6	DSR	:	The DC, Saraikela-Kharsawan vide letter no. 119/M, dated 21.02.2023 has informed that this project is part of District Survey Report (DSR) of Saraikela Kharsawan district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	Gram Sabha conducted on 30.11.2022
8	Mine Plan Approval	:	DMO, Gumla vide Letter No. 203/M, dated 21.02.2023.

Working Details

1	Mining Method	:	Opencast semi-mechanized method.	
2	Quarry Area	:	2.877 ha. or 7.11 Acres	Life of Mine – 5.0 Years
3	Waste Generation	:	5987.00 cum	
4	Stripping Ratio	:	1: 0.004	
5	Working Days	:	300	
6	Benches: size & No	:	6m to 6m	
7	Elevation of Mine	:	178 AMSL to 182 AMSL	
8	Ground Level Elevation	:	178 AMSL	
9	Ultimate Working Depth	:	150 AMSL (32 mbgl)	
10	Water Table	:	140 AMSL (42 mbgl)	
11	Topography of Mine	:	Area represents a flat topography.	
12	Explosive Requirement	:	80Kg/Day	
13	Diesel/Fuel requirement	:	95 litre/day	

Production Details

Year	Production of stone (cum)	Production of stone (tons)	Waste Generation (cum)	Bench RL in Meters
1 st	98260.00	265302.00	5987.00	182mRL - 174mRL
2 nd	99450.00	268515.0	-	174mRL - 168mRL
3 rd	99790.00	269433.00	-	168mRL - 162mRL
4 th	99960.00	269892.00	-	162mRL - 156mRL
5 th	99960.00	269892.00	-	156mRL - 150mRL
Total	497420.00	1343034.00	5987.00	

Land Use

Pattern of Utilization	Existing Land Use(Ha)	At the end of Plan Period	At Conceptual Period
Quarry	Nil	2.044	2.044 Ha (Entire Area Rain Water Harvesting)
Road	0.006	Comes Under Quarry	Nil
Plantation(S.Z.)	-	0.833	0.833
Balance	2.871	-	-

Total	2.877	2.877	2.877
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ENVIRONMENT MANAGEMENT
Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.833 ha	8083
2	Along Approach Road	0.19 km	190

Year	Safety Zone Area (in Hectare)/No. of Plants	Plantation along both sides of Approach road	Location
1 st Year	0.833/2083	190	Approach road – 190 nos – along both sides of approach road at spacing of 2 m.
2 nd year	Care / Protection of Plants		
3 rd year			
4 th year			
5 th Year			
Total	2083	190	
Total no. of plants	2273		

- 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 5987.00 cum waste during the plan period will be generated. Part of the waste shall be utilized for maintenances of the village road and making of approach road, haul road etc. and part of the waste shall be temporary dump in the western side of the applied area.

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.
- 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 is required permission should be taken from 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 Tangarjora Stone Deposit of M/s Kolhan Infrastructure Pvt. Ltd., Village : Tagarjora, Thana : Rajnagar, Distt. : Saraikela-Kharsawan, Jharkhand (2.877 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IV.

7. Grain Based Distillery with Cogeneration Plant of M/s Sheonarain Jaiswal Pvt. Ltd., Village :Balsiring, Tehsil : Namkum, Distt. : Ranchi, Jharkhand.

(Proposal No.SIA/JH /IND2 /415276/2023).

Name of the consultant : PARAMARSH Servicing Environment and Development, Lucknow

This is a violation project which has been taken for appraisal on 22.02.2023 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.

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 5 (g) Distilleries as per EIA Notification, 2006.

SNJPL proposed to set up an Greenfield Grain based distillery of 60 KLD capacity alongwith 1.775 MW Power Plant with latest technology of Multi Pressure Distillation and MSDH for dehydration to achieve good quality of Fuel grade Ethanol.

Proposed production of 60 KLD distillery with 1.775 MW captive Power Generation plant will be based on grain such as Corn/Maize, Broken rice and the Spoiled Grain as basic raw materials. Other inputs will be water, antifoam agents, Urea, H2SO4 and enzymes. Rice husk/Biomass /Bagasse/Coal will be used as fuel in Boiler.

The Distillery proposes to achieve Zero Liquid Discharge by Decantation, Multi Effect Evaporation (MEE) followed by dryer to form Distiller's Grain Solids with Solubles (DDGS), which will be used as cattle/fish Feed. The entire spent wash will be used to achieve Zero Liquid Discharge.

Grain Based Distillery of Sheonarain Jaiswal Pvt. Ltd. (SNJPL), is proposed at Plot No. 726 (P), Balsiring, Turka Toli, Tupudana, Near Ring Road, PS- Dhurva, P.O. Hatia, Block Namkum in District Ranchi, Jharkhand having Latitude 23°15'25.89"N & Longitude 85°16'24.30"E at 648 m. above MSL. The Project Site is connected to NH-75 via Ring Road. It is about 10 kms. from district head

quarter at Ranchi and is well connected by NH – 75. SNJPL is about 7 Km. (SSE) from Hatia Railway Station on Netaji S.C.Bose Gomoh–Hatia Sec. of SER. Total cost of the proposed SNJPL distillery project is estimated to be Rs. 22 Crores.

3.64 Ha. (8.99 Acres) of land of Khata No. 123, Khesra No. 726 will be utilized for proposed grain based distillery project out of total available land of 10.82 ha. (26.74 Acres) in Khata No. 123, Khesra Nos. 726 & 576 of Balsiring, Namkum, Ranchi.

Land Details :

Khata no.	Plot no.
123	726 (P)

Manufacturing & Production Details :

Manufacturing Facilities	Product	Production Capacity
Distillery	Ethanol / ENA	60 KLPD
Power Co-generation	Power	1.775 MW
No. Of Days Operation / Annum	350 days	
Distilleries Dry Grain with Solubles (DDGS), & CO ₂ will be generated as by-product.		
By-Product		Generation Capacity
DDGS		30 TPD
CO ₂		20 TPD
Fusel Oil		90 Ltrs. / day

Raw Material Requirement :

Item	Raw Material Requirement
Maize / Broken Rice	162 TPD / 156 TPD
No. Of Days Operation / Annum	350 days

Pollution Control Measures :

The proposed Grain based distillery will be based on “Zero Liquid Discharge”. Fresh water requirement of the project will be met by Ground Water. Efforts will be made to conserve as much water as possible by recycling and reuse. Spent wash generated during Grain operation, would be decanted by centrifuge decanter to obtain Distiller's Wet Grains with Soluble (DWGS), and the concentrate (Thin Slop) is concentrated (DGSS) in Multi-effect evaporator and then mixed with DWGS and dried in Rotary Dryer to form Dried Distiller's Grain with Soluble (DDGS) and used as Cattle feed/Poultry/Fish. Process condensate from MEE will be treated and recycled back in the process. Closed water recycle system and plant process is designed to minimize fresh water requirement by recycling various effluents after treatment.

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Waste Water Generation & Treatment :

The spent wash from proposed grain based distillery will be subjected to decantation to separate out wet cake and 6-7% w/w solid thin slop will be fed to evaporator. The thick syrup @ 35-40 % solids after the evaporation would then fed to DWGS drier to produce DDGS at 88-90% w/w solids which will be sold as Cattle feed. The boiler blow down, DM plant, softener regeneration water will be treated in a neutralization tank and after treatment it will be used as cooling water makeup water.

Process condensate from evaporation section will be partly recycled and balance will be treated in process condensate treatment plant, treated water will be used as dilution water in slurry preparation and as cooling water makeup water and steam condensate will be recycled back to the boiler.

Air Pollution :

To minimize air pollution load due to operation of proposed boilers of SNJPL Bag Filters with stack of adequate height will be installed with the boiler to control the particulate and gaseous emissions due to combustion of fuel. CO₂ produced during the fermentation process will be collected and utilized as an industrial gas or bottled and sold. Diesel Generator (DG) Sets with acoustic enclosures will also have adequate stack height as per Central Pollution Control Board (CPCB) Guidelines. All the internal roads will be asphalted. Development of Green Belt (in 1.21 Ha. 33 % of total project area) around the periphery and within the premises of the plant will help in attenuating the pollutants emitted by the plant.

Solid Waste Management:

Solid waste	Quantity	Disposal
ETP sludge	30 kg/day	Used as manure
Boiler ash	18 TPD	Rice Husk Ash will be sold to cement manufactures/ceramic industry. Ash of Coal will be sold to fly ash bricks manufacturing unit.

Raw Material required along with estimated Quantity, likely source, marketing area of final products, mode of Transport of raw material & finished product.

S. No.	Particular	Requirements
1.	Grain (MT/day)	Maize : 162 TPD Broken Rice : 156 TPD
2.	Fresh Water (KLPD)	340
3.	Electricity	1.775 MW
4.	Fuel	
5.	Rice husk / Biomass / Coal	90 TPD / 72 TPD
6.	Enzymes -Alpha Amylase (1-4) -Amyloglucosidase(1-6)	45 Kg/day 60 Kg/day

7.	Chemicals	
	Sulphuric Acid	39 Kg /day
	Sodium Hydroxide	51 Kg /day
	NH ₂ -CO-NH ₂ (Nutrients)	45 Kg /day
	Antifoam Agent	75 Kg /day
	Dry Yeast	1 Kg/KL of spirit production

Water Requirement

TOTAL WATER INPUT (KL)		TOTAL WATER OUTPUT (KL)	
Process water in fermentation	350	Steam condensate	145
DM water for boiler feed	215	Water in Spent wash	315
Soft water for vaccum pump and others	35	Thin Slope	80
Soft water makeup for cooling tower	110	CT evaporation and drift losses	150
Water in Grain	15		
Miscellaneous Washing (Provisional)	5	Vaccum pump sealing / purge	5
TOTAL	730	Miscellaneous Washing (Provisional)	5
		TOTAL	730

RECYCLE and UTILIZATION STREAMS (KL)	
Steam Condensate recycle for boiler	125 KLD
Thin slop recycle Slurry preparation and Liquefaction section	50 KLD
Process condensate recycle to process and CT	35 KLD
Vaccum pump water recirculation	30 KLD
Treated WW	175 KLD
Recycling/ re-utilization of water per day (Industrial Purposes)	400 KLD
Recycling/ re-utilization of water per day (Green Belt)	15 KLD
Total Recycling/ re-utilization of water per day	415 KLD
Fresh Water requirement for Distillery	300 KLD
Fresh Water for Cooling Tower Make-up Cogeneration Plant	20 KLD
Total Industrial Fresh Water Requirement	320 KLD
Domestic Use	10 KLD
Overall Fresh Water Requirement	330 KLD

Power Requirement and Source :

The Unit's own Power cogeneration will be 1.775 MW generation which will be used for captive power requirement. DG sets will be used in case of emergency.

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Steam Requirement :

Steam requirement will be sourced from proposed 18 TPH Rice husk / Bagasse / Biomass / Coal fired boiler.

S.No.	Steam requirement	Kg/Lit Of Total Spirit
1.	Liquefaction, Distillation, MSDH (Wash to AA mode), Integrated Evaporation, DWGS Dryer	3.5 to 3.8 Kg/Lit of Total Spirit

Boiler Details :

Steam requirement is 15 TPH, which will be sourced from proposed 18 TPH Boiler.

Steam Consumption (Dry Saturated)	Proposed Scheme
1. Cooking and Liquefaction	0.6 Kg/lit of TS
2. Distillation	1.7 Kg/lit of TS
3. Ethanol	0.6 Kg/lit of TS
4. DWGS Dryer	1.6 Kg/lit of TS
5. Total Steam Requirement	4.5 Kg/lit of TS (With Multi Effect Evaporator and dryer)

Proposed Boiler Details :

HP Boiler of 18 TPH capacity alongwith Bag Filter as Air Pollution Control Equipment followed by adequate Stack height will be installed as per CPCB & JSPCB guidelines. Details regarding proposed boiler are mentioned in the table given below :

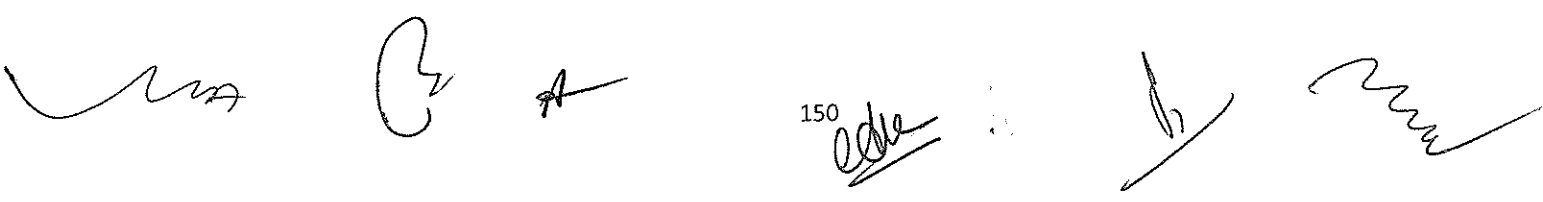
Proposed Boiler Details

S. No.		Details
1.	Type of Fuel	Rice Husk/Biomass/Coal
2.	Capacity of Boiler	18 TPH
3.	Stack Height	33.7 m
4.	Pollution Control Equipment Measures	Bag Filters

Waste Water Generation & Treatment :

The spent wash from proposed grain based distillery will be subjected to decantation to separate out wet cake and 6-7% w/w solid thin slop will be fed to evaporator. The thick syrup @ 35-40 % solids after the evaporation would then fed to DWGS drier to produce DDGS at 88-90% w/w solids which will be sold as Cattle feed.

The boiler blow down, DM plant, softener regeneration water will be treated in a neutralization tank and after treatment it will be used as cooling water makeup water. Process condensate from evaporation section will be partly recycled and balance will be treated in process condensate



treatment plant, treated water will be used as dilution water in slurry preparation and as cooling water makeup water and steam condensate will be recycled back to the boiler.

STATUTORY CLEARANCES :

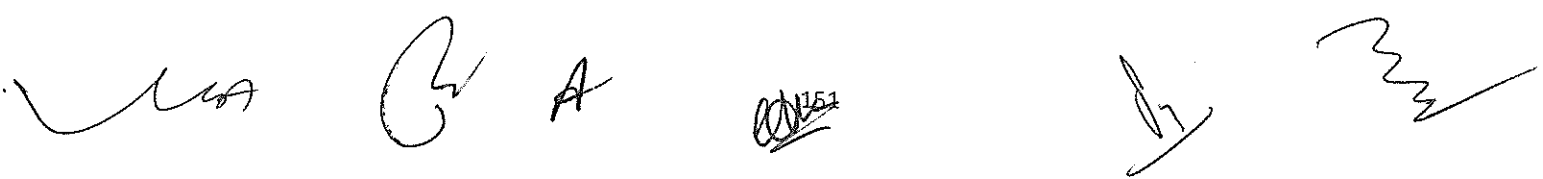
1	LOI/Lease docs	:	Land for SNJPL project is registered in the name of SNJPL.
2	CO	:	The CO, Namkum (Ranchi) vide letter no. 320 (ii), dated 10.02.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DFO Wild Life	:	DFO Wildlife Ranchi vide letter no. 1081, dated 06.12.2021 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
4	DFO Forest Distance	:	DFO, Ranchi vide letter no. 5286, dated 27.12.2022 certified that the distance of reserved / protected forest is more than 250 metre from project site.
5	CGWA	:	No Objection Certificate for Ground Water Abstraction issued by CGWA vide NOC no. CGWA/NOC/IND/ORIG/2022/15295, dated 21.04.2022

During the presentation the following documents were sought :

- i. Duly signed Land document to be provided.
- ii. Affidavit regarding initiation and closure of construction & installation activity to be submitted.
- iii. Declaration of baseline data generation period to be provided.
- iv. Work order related to EIA / EMP report to be provided.

The Project Authorities have submitted the above mentioned documents.

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 20, 21, 22, 23 & 24.02.2023, the Committee recommends for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure V.



8. Badiya Stone Deposit of M/s Badiya Stone Mines, Village :Badiya, Thana No. : 558,Thana :Karon, Distt. : Deoghar, Jharkhand (1.62 Ha).

(Proposal No. : SIA/JH/MIN/418556/2023).

Project Category: B2 – Application for Environment Clearance

EC Application for: Boulder Stone : 8752.59 Cu.M. / year i.e. 23632 TPA

Waste 7372 Cu.m

DG Set : None

Mobile Crusher- NA

Name of the consultant : Crystal Consultants, Ranchi

This is a new/expansion project which has been taken for appraisal on 22.02.2023

Project and Location Details :

Sl	Parameter	Details
1	Project Name	: Badiya Stone Deposit
2	Lessee:	: M/s Badiya Stone Mines, Partners Md. Iftkhar Ansari & Others
3	Lease Address	: Mouza- Badiya, Thana- Karon, Thana No. 558, Dist- Deoghar, Jharkhand
4	Lease Area	: Ha: 1.62 ha Acres: 4.00 Acres
5	Type of Land	: Non Forest – Raiyati Land
6	Project Cost	: 28.00 Lakhs
7	EMP Budget	: Capital: 9.40 Lakhs Recurring: 3.20 Lakh / year
8	CSR / CER Budget	: Rs. 0.56 Lakhs
9	New or Expansion	: New Project
10	Mineable Reserves	: Cu.M.: 87462.9 Cu. M. Tonnes: 236149.83 Tonnes
11	Mine Life	: 10 years
12	Man power	: 18
13	Water Requirement	: 11.17 KLD (Drinking:0.72 KLD, Dust Suppression:4.0 KLD, Plantation:6.45 KLD)
14	Water Source	: Water for drinking purpose will be taken out by dug wells/ bore wells. For sprinkling & plantation water will be taken from private tanker
15	DG Set / power	: None
16	Crusher	: No
17	Nearest Water Body	: Jayanti River 3.7 KM
18	Nearest Habitation	: Badiya Village: 0.6 KM; Madhupur 9.5 KM
19	Nearest Rail Station	: Madankatta Railway Station 5.2 KM
20	Nearest Air Port	: Deoghar Airport, Deoghar: 30 KM
21	Nearest Forest	: NIL
22	Road & Highways	: NH 114-A – 9.0 KM; Deoghar- Sarwan Road 6.0 KM

CO-ORDINATES

1	Latitude	From N24°10'29.44" N	To N24°10'37.41" N
2	Longitude	From E86°39'10.10"	To E86°39'20.24"

LAND DETAILS

1	Mouza Telmakri	Khata No. 28	Plot No - 627(P)
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STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Office, Deoghar vide letter no. 1431/M dated 24.12.2022
2	CO	:	The CO, Karon, Deoghar vide letter no. 436/Ra, dated 12.11.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyon & Register II.
3	DMO	:	DMO, Deoghar vide memo no. 207/M, dated 22.02.2023 certified that no other lease exists within 500 m radius from proposed project site & Total lease area is less than 5 Ha.
4	DFO Wild Life	:	Divisional Forest Officer, Wildlife Hazaribagh vide letter no. 2320, dated 20.11.2022 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Deoghar vide letter no. 1611, dated 18.11.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC-cum-District Magistrate, Deoghar vide letter no. 61 / M, dated 12.01.23 has informed that this project is part of District Survey Report (DSR) of Deoghar district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Karon, vide letter no. 937/Vi, Dated 12.11.2022 informed that Gram Sabha conducted on 29.10.2022.
8	Mine Plan Approval	:	District Mining Office, Koderma vide letter no. 179/M, dated 28.01.2023.

Working Details

1	Mining Method	:	Semi Mechanized. Jack Hammer, Drilling & Blasting to be used
2	Quarry Area	:	5 years – 0.70 ha Life of Mine – 0.94 ha
3	Waste Generation	:	5 years–7372 Cu.M Life of Mine – Morum – 2513

			Morum-2513 Cu.M	Cu.M
4	Stripping Ratio	:	0.062 : 1	
5	Working Days	:	295	
6	Benches: size & No	:	3m x 3m	
7	Elevation of Mine	:	218 AMSL	
8	Ground Level Elevation		208 AMSL	
9	Ultimate Working Depth	:	209.35 AMSL	
10	Water Table	:	200 AMSL & 8 m bgl	
11	Topography of Mine	:	Undulating Topography	
12	Explosive Requirement	:	2.655 Tons/year	
13	Diesel/Fuel requirement	:	29.50 KL/year (100 Litres/day)	

Production Details

Year	Production of stone in Tonnes	Production of stone in Cum	Production of soil in Cum	Intercalated waste in Cum	Total Waste in Cum
1 st Year	23632	8753	1821	973	2794
2 nd Year	23609	8744	301	972	1273
3 rd Year	23602	8741	342	971	1313
4 th Year	23624	8750	49	972	1021
5 th Year	23601	8741	0	971	971
Total	118068	43729	2513	4859	7372

Land Use

SL	Pattern	Existing Land Use (Ha)	Proposed Current Plan Period (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Land Usage at Conceptual Stage
1	Quarry	0.00	0.70	0.94	(Rain water Harvesting Pit - 0.58 Ha., Rehabilitated area - 0.23 Ha., Embankment - 0.02 Ha., Bench plantation -0.11)
2	Road	0.00	0.01	0.01	0.01
3	Dump	0.00	0.14	0.00	
4	Retaining Wall	0.00	0.01	0.00	
5	Garland drain & Sump	0.00	0.02	0.00	

6	Green Belt	0.00	0.67	0.67	Plantation
7	Total Area used	0.00	1.55	0.00	
8	Balance area unused	1.62	0.07	0.00	
	TOTAL	1.62	1.62	1.62	

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION		Area/Length	No. of Trees
1	Safety Zone	:	0.67 ha	1072 trees @ 1600 trees per ha
2	Other Reclaimed Area	:	0 ha	0
3	Haul /Approach Road	:	0.4 KM	268 trees (@334 trees per km on both side in single row)
4	Dead Bench Plantation		0.11 ha	176 trees @ 1600 trees per ha

- 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 7372 Cu.m of waste shall be generated which shall be store at dump yard in Northern Portion of lease area and shall be use for haul road dressing during the 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 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.
- 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.
- 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 is required permission should be taken from 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 Badiya Stone Deposit of M/s Badiya Stone Mines, Village :Badiya, Thana No. : 558,Thana :Karon, Distt. : Deoghar, Jharkhand (1.62 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IV.

9. Telmakri Stone Deposit of M/s Sai Minerals, Mouza :Telmakri, Thana No. : 392,Thana :Jamua, Distt. : Giridih, Jharkhand (1.76 Ha).

(Proposal No. : SIA/JH/MIN/408772 /2023).

Project Category: B2 – Application for Environment Clearance

EC Application for: Boulder Stone : 7223.70 Cu.M. / year i.e. 19504 TPA

Waste 8582.6 Cu.m

DG Set : None

Mobile Crusher- NA

Name of the consultant : Crystal Consultants, Ranchi

This is a new project which has been taken for appraisal on 22.02.2023.

Project and Location Details :

Sl	Parameter	Details	
1	Project Name	: Telmakri Stone Deposit	
2	Lessee:	: M/s Sai Minerals, Partners Sri Kailash Prasad Verma & Others	
3	Lease Address	: Mouza- Telmakri, Thana- Jamua, Thana No. 392, Dist- Giridih, Jharkhand	
4	Lease Area	: Ha: 1.76 ha	Acres: 4.35 Acres
5	Type of Land	: Non Forest – Raiyati Land	
6	Project Cost	: 28.00 Lakhs	
7	EMP Budget	: Capital: 8.54 Lakhs	Recurring: 3.10 Lakh / year
8	CSR / CER Budget	: Rs. 0.56 Lakhs	
9	New or Expansion	: New Project	
10	Mineable Reserves	: Cu.M.: 116518.51 Cu. M.	Tonnes: 314600 Tonnes
11	Mine Life	: 16 years	
12	Man power	: 18	
13	Water Requirement	: 20.98 KLD (Drinking:0.72 KLD, Dust Suppression:11.0 KLD, Plantation:9.26 KLD)	
14	Water Source	: Water for drinking purpose will be taken out by dug wells/ bore wells. For sprinkling & plantation water will be taken from private tanker	
15	DG Set / power	: None	
16	Crusher	: No	
17	Nearest Water Body	: Irga River 1.6 KM	
18	Nearest Habitation	: Jaruadih Village: 0.6 KM; Jamua 12.5 KM	
19	Nearest Rail Station	: Rajdhanwar Railway Station 16.2 KM	
20	Nearest Air Port	: Birsa Munda Airport, Ranchi: 131 KM	
21	Nearest Forest	: NIL	
22	Road & Highways	: SH 13 – 12.5 KM; NH-114A- 26.5 KM	

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CO-ORDINATES

1	Latitude	From N24°17'18.54" N	To N24°18'1.79" N
2	Longitude	From E86°3'15.15"	To E86°3'24.54"

LAND DETAILS

Sl. No.		Khata no.	Plot no.
1	Mouza Telmakri	5	104(P), 199(P), 198(P)
2		12	173(P)
3		13	196(P), 197
4		19	102(P)
5		20	103(P), 168
6		28	169(P), 176(P)
7		29	170(P), 174(P)

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (Lol) has been issued by District Mining Office, Giridih, vide letter no. 964/M dated 11.10.2022
2	CO	:	The CO, Jamua (Giridih) vide letter no. 280, dated 11.03.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in Khatiyen.
3	DMO	:	DMO, Giridih vide memo no. 1041/M, dated 12.11.2022 certified that one other lease area (1.50 acre) exists within 500 m radius from proposed project site & Total lease area is less than 5 Ha.
4	DFO Wild Life	:	Divisional Forest Officer Wildlife Hazaribagh vide letter no. 547, dated 24.03.2022 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Giridih West Division vide letter no. 139, dated 07.02.2023 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC-cum-District Magistrate, Giridih vide letter no. 1054/M, dated 14.11.2022 has informed that this project is part of District Survey Report (DSR) of Giridih district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	Gram Sabha conducted on 03.03.2022.
8	Mine Plan Approval	:	Additional Director, Geology, Hazaribagh vide letter no. 321/G, dated 20.10.2022.

Working Details

1	Mining Method	:	Semi Mechanized. Jack Hammer, Drilling & Blasting to be used	
2	Quarry Area	:	5 years – 1.05 ha	Life of Mine – 1.269 ha
3	Waste Generation	:	5 years–8582.6 Cu.M Morum–4977 Cu.M	Life of Mine – Morum – NIL
4	Stripping Ratio	:	1:1	
5	Working Days	:	295	
6	Benches: size & No	:	3m x 3m	
7	Elevation of Mine	:	311 AMSL	
8	Ground Level Elevation	:	306 AMSL	
9	Ultimate Working Depth	:	306 AMSL	
10	Water Table	:	294 AMSL & 12 m bgl	
11	Topography of Mine	:	Undulating Topography	
12	Explosive Requirement	:	2.7 Tons/year	
13	Diesel/Fuel requirement	:	29.50 KL/year (100 Litres/day)	

Production Details

Year	Production of stone in Tonnes	Production of stone in CuM	Production of soil in CuM	Intercalated waste in CuM	Total Waste in CuM
1 st Year	19504	7223.70	4536	722.37	5258.37
2 nd Year	19481	7215.19	441	721.52	1162.52
3 rd Year	19443	7201.11	0	720.11	720.11
4 th Year	19458	7206.67	0	720.67	720.67
5 th Year	19465	7209.26	0	720.93	720.93
Total	97350	36055.56	4977	3605.59	8582.6

Land Use

SL	Pattern	Existing Land Use (Ha)	Proposed Current Plan Period (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Land Usage at Conceptual Stage
1	Quarry	0.000	1.05	1.269	Rain water Harvesting Pit - 1.12 Ha., Rehabilitated area - 0.073 Ha.,

					Embankment - 0.02 Ha., Bench plantation -0.056 Ha.
2	Road	0.001	0.002	0.001	
3	Dump	0.000	0.112	0.000	
4	Retaining Wall	0.000	0.007	0.000	
5	Garland drain & Sump	0.000	0.06	0.000	
6	Green Belt in Safety Zone	0.000	0.490*	0.490	Plantation
7	Total Area used	0.001	1.721	0.500	
8	Balance area unused	1.759	0.039	0.000	
	TOTAL	1.760	1.760	1.760	

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.49 ha	784 trees @ 1600 trees per ha
2	Other Reclaimed Area	:	0 ha	0
3	Haul /Approach Road	:	1.1 KM	736 trees (@334 trees per km on both side in single row)
4	Dead Bench Plantation		0.056 ha	90 trees @ 1600 trees per ha

- 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 8582.6 Cu.m of waste shall be generated which shall be store at dump site in Eastern Portion of lease area and shall be use for haul road dressing during the 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.




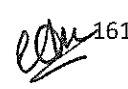


- The rain water during rainy season will be collected in a pit and shall be use for dust suppression and plantation. Excess water, if any shall be discharged in natural stream after settling of suspended particles in the pit. Pump having required capacity will be installed to lift accumulated rain water 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.
- 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.
- 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 Telmakri Stone Deposit of M/s Sai Minerals, Mouza :Telmakri, Thana No. : 392,Thana :Jamua, Distt. : Giridih, Jharkhand (1.76 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IV.

10. Shrachhi Greens Project of M/s Shrachhi Realty Pvt. Ltd., Village : Tamulia, Tehsil : Chandil, Distt. : Seraikela Kharsawan, Jharkhand.

(Proposal No. SIA/JH/INFRA2/ 403087 /2022).

Name of the consultant : Crystal Consultants, Ranchi, Jharkhand.

This is an expansion project which has been taken for appraisal on 22.02.2023.

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 sqm. and development area is less than 50 ha.

PARTICULAR	DETAILS
Project Name	Shrachhi Greens Project
Proponent	Shrachhi Realty Private Limited
Type of Building	Residential Building
Latitude	22°50'56.27"N
Longitude	86°12'1.63"E
Mauza	Tamulia
Tehsil	Chandil
District	Seraikela Kharsawan
State	Jharkhand

Salient Features

Particulars	As per Environmental Clearance	As per Sanction Plan
Plot Area	30835.02 sq. m.	30832.70 sq. m.
Built-up Area	73535.84 sq. m.	84683.70 sq. m.
FAR	1.99	2.36

Ground Coverage	12135.32 sqm.	10375.44 sq. m. (Approx. 20 %)
Height of Building	LG+G+8 (30 m.)	G+11 (35.85 m.)
Plantation	6200.09 sqm.	6238.94 sqm. (20.23 %)
Number of Building Block	Tower : 10 Row House : 3 Town House : 1 Podium : 1 Club : 1 BV : 2 SP : 5 Total : 23	Club : 1 Tower : 6 Row Cluster : 4 Podium : 1 Total : 12
Number of Unit	--	1 BHK : 152, 2 BHK : 127, 3 BHK : 348, 4 BHK : 46 and Utility Room : 12 Total : 685
Population	4755 (Including 10% Floating Population)	4018 (Including 10% Floating Population)
Fresh Water Demand	428.00 KLD	361.62 KLD
Treated Water Demand	333.00 KLD	260.81 KLD
Quantity of Waste Water	527.40 KLD	470.11 KLD
STP	350.00 KLD	500 KLD
Quantity of Municipal Solid Waste	0.1425 TPD	Municipal Solid Waste : 2410.00 Kg/Day Bio-degradable Waste : 964.32 Kg/Day Non- Bio-degradable Waste : 1446.48 Kg/Day
Power Requirement	1341 KVA	2988 KVA
Power Back – Up	1000 KVA (4 DG Sets X 250 KVA)	1280 KVA (4 DG Set X 320 KVA)
Rain Water Harvesting Pit	--	3 Pits
Project Cost	--	17016.27 lacs

LAND DETAILS :

Khata No.	29	156	64	66	195	162
Plot No.	810, 807,	813	817	816	819	770, 768, 825,

	809,820, 818, 811, 812, 808, 830					761, 829, 821, 822, 772, 824, 767
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STATUTORY CLEARANCES :

1	DFO Forest Distance	:	DFO, Seraikela Forest division vide letter no. 988, dated 15.05.2019 certified that the distance of notified forest is 548 m from proposed project site.
2	DFO wildlife	:	DFO, Dalma Elephant Project vide letter no. 580, dated 15.06.2019 certified that the proposed project site is outside of Eco Sensitive Zone of Dalma Wildlife Sanctuary.
3	CO certificate	:	The CO, Chandil vide letter no. 883, dated 23.04.2019 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 JAMS/EAST/B/020320/439411, dated 17.02.2020.
5	Fire Department	:	A fire advisory has been issued by Fire Department, Jharkhad, Ranchi vide vide memo no. 2407/Tech., dated 31.08.2019.
6	Building Plan	:	Building Plan approved by Saraikela Kharsawan Zila Parishad vide memo no. 0013, dated 21.01.2021.
7	Previous Environmental Clearance (EC)	:	Previous Environmental Clearance (EC) granted by SEIAA, Jharkhand vide letter no. EC/SEIAA/2018-19/2212A/2019/690, dated 08.11.2019.
8	EC Compliance Report	:	MoEF & CC, Ranchi Regional Office issued certified EC compliance report Vide Letter No. 111-09/IROR-2022/444, Dated : 01/08/2022.
9	CTE	:	Consent to Establish (CTE) granted by JSPCB vide Letter No.: JSPCB/HO/RNC/CTE-15302466/2023/125 Dated : 19/02/2023.

POPULATION ESTIMATION

	Configuration	Number of Dwelling Units	Number of persons as per NBC	Population
Residential Building	1 BHK	152	4	608
	2 BHK	127	5	635
	3 BHK	348	6	2088
	4 BHK	46	7	322
	Sub-Total			3653
	<i>Floating Population (10% of Total Population)</i>			365
	Total			4018

MUNICIPAL SOLID WASTE

Building Type	Municipal Solid Waste @0.6 Kg per Person per Day	Bio-degradable (40% of MSW)	Non-Biodegradable (60% of MSW)
Residential Building	2410.80 Kg/ Day	964.32 Kg/ Day	1446.48 Kg/ Day

WATER & WASTE WATER

Water Demand (KLD)		Source	
Domestic	361.62	Fresh Water (Ground Water)	361.62 KLD
Flushing	180.81	Treated Water	260.81 KLD
Horticulture	10.00	Treated Water	
Dust Suppression	20.00	Treated Water	
Vehicle Washing	50.00	Treated Water	
Total Water Demand	622.43		
Discharge (Treated Water into Drain)	115.27	Treated Water	
STP Calculation (KLD)			
Total Domestic Water	361.62	289.30	80% of Domestic Water is Waste Water
Total Flushing Water	180.81	180.81	100% of Flushing Water is Waste Water
Total Volume of Waste Water		470.11	
STP Capacity		500.00	
<i>Treated Water from STP : 376.08 KLD & 94.03 KLD Loss on account of evaporation, loss in conveyance and processing.</i>			

RAIN WATER HARVESTING

Catchment Area(m ²)	Runoff Coefficient	Intensity of Rainfall in 24 hr. (mm)	Maximum Intensity of Rainfall hourly (mm/hr)	Retention Time - Runoff (m ³ /15 mins)	Runoff 60 minutes
10383.07	0.85	180	9	19.86	79.43

Volume of desilting Tank (m ³)	Volume of Recharge Pit (m ³ Per pit)	Total Volume (m ³)	Runoff 60 minutes	No. of pits required	No. of pits proposed
30	1.5	31.5	79.43	2.521602714	3

3 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.

COSTING

Total Project Cost is **Rs. 17016.27 lacs**

Cost for Environment Management Plan (EMP)

Green Area or Greenbelt Development	- Rs. 05,00,000.00
STP	- Rs. 60,00,000.00
Artificial Ground Water Recharge System	- Rs. 06,00,000.00
Rainwater Harvesting Recharge Pits	- Rs. 06,00,000.00
Use of Renewable Energy	- Rs. 70,00,000.00
Sludge Treatment Plant	- Rs. 05,00,000.00
Total EMP Capital Cost	- Rs. 1,52,00,000.00

Recurring Cost @ 10% of EMP Capital Cost i.e. Rs. 15,20,000.00

Based on the presentation made and information provided, the Committee decided that the proposal for Shrachi Greens Project of M/s Shrachi Realty Pvt. Ltd., Village : Tamulia, Tehsil : Chandil, Distt. : Seraikela Kharsawan, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I 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.

(Handwritten signatures and initials)

- 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.

11. Jitpur Under Ground Mine of M/s Steel Authority of India Limited – Collieries Divison, Village : Noonudih & Jitpur, Block : Jharia, P.S. : Jorapokhar, Distt. : Dhanbad, Jharkhand (163.69 Ha).

(Proposal no. : SIA/JH/CMIN/82988/2021)

Project Category: B – Application for grant of Environment Clearance

EC Application for: Coking Coal Production: 0.6/0.7 Million Tons (Normative/Peak)

Waste: NIL

Mobile Crusher: Nil (No Crushing is required)

Name of the consultant: M/s CIMFR, Dhanbad.

This is an Underground Coal Mining project which has been taken for appraisal on 22.02.2023.

Project and Location Details :

Sl	Parameter	Details
1	Project Name	: Jitpur Under Ground Mine, Collieries Division, STEEL AUTHORITY OF INDIA LIMITED (Lease Area-163.69 ha)
2	Lessee:	: Collieries Division, Steel Authority of India Limited
3	Lease Address	: Chief General Manager (C&J) Collieries Division, SAIL-Chasnalla (Dhanbad), Jharkhand-828135 E-mail gmchasnalla@gmail.com
4	Lease Area	: Ha: 163.69 ha Acres:404.31
5	Type of Land	: Private & Govt. land. There is no forest land.

(Handwritten signatures and initials are present below the table)

6	Project Cost	:	222.69 Crores
7	EMP Budget	:	Capital: 50.Lakh Recurring: 22. Lakh / year
8	CSR / CER Budget	:	Rs. 1 . Crore
9	New or Expansion	:	Expansion of production capacity 0.6/0.7 Million Tons (Normative/Peak)
10	Mineable Reserves	:	21.10 Million Ton
11	Mine Life	:	23 years (as per the Mining plan)
12	Man power	:	Total manpower 347.
13	Water Requirement	:	1510 KLD
14	Water Source	:	Domestic water requirement is 1110 KLD source- MADA supply. Industrial water requirement is 400 KLD source-Mine water.
15	DG Set / power	:	4800 KVA. (Source-DVC and JSEB)
16	Crusher	:	Not Applicable as no crushing is involved.
17	Nearest Water Body	:	Damodar River
18	Nearest Habitation	:	Jitpur and Noonudih village.
19	Nearest Rail Station	:	Bhaga Railway Station-3 Km and Dhanbad Railway Station-13 Km from Jitpur Mining Lease
20	Nearest Air Port	:	Ranchi Airport- 150 km
21	Nearest Forest	:	1596m away from project.
22	Road & Highways	:	NH-19 (Old NH-2): About 16 km away passes through Dhanbad

CO-ORDINATES

1	Latitude	Latitudes 23°42'32" to 23°43'14" N
2	Longitude	Longitude 86°23'05" to 86°24'14"E.

LAND DETAILS

1	Total land 163.69 ha of Mining Lease area. SAIL land: 35.35 ha Private land: 103.82 ha Government land:24.52 ha Forest land : Nil
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STATUTORY CLEARANCES

1	LOI/Lease docs	:	The total Lease hold area of Jitpur is 163.69 Ha, containing two mouzas namely Jitpur (87.31 Ha) and Noonudih (76.38 Ha). Lease was granted in the year 1902 for a period of 991 years. The Ministry of Coal issued notification dated 1 st October, 2021
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		<p>regarding amendment of Mineral concession Rule and called Mineral Concession (Amendment) Rules, 2021. As per 24C (2) (Period of mining lease granted to Government companies or corporation) all subsisting mining leases vested or granted to Government companies or corporation before commencement of Mineral Concession (Amendment) Rules,2021 for coal or lignite shall be deemed to have been granted for fifty years or till 31st March 2030, whichever is later.</p> <p>In pursuance to the Mineral Concession (Amendment) Rules, 2021 application submitted to DMO, Dhanbad on 06.12.2021 for lease validity as applicable under 24C (2).</p>
2	CO	: The CO, Jharia vide letter No. 1663, Dated 17.12.2022 and letter no. 1736, dated 28.12.2022 has mentioned the plot nos. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyani & Register II.
3	DFO Wild Life	: DFO, Wildlife Hazaribag vide letter no. 23, dated 09.01.2023 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
4	Territorial DFO	: DFO, Dhanbad Forest Division vide letter no. 2342 & 2343, dated 11.10.2022 and letter no. 90 & 91, dated 11.01.2023 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
5	Consent to Operate (CTO)	: CTO granted by JSPCB vide Ref. no. : JSPCB/HO/RNC/CTO-1174113/2017/1550, dated 07.11.2017.

Working Details

1	Mining Method	: Underground Mine. Longwall panel with hydraulic Sand/Bottom Ash stowing method.
2	Quarry Area	: NA
3	Waste Generation	: 5 years- Nil Life of Mine -23 years
4	Stripping Ratio	: Not Applicable
5	Working Days	: 300
6	Bench: size & No	: NA
7	Elevation of Mine	: 170.835 MRL
8	Ground Level Elevation	: 158m to 177m (Lowest and Highest contour)
9	Ultimate Working Depth	: 543m
10	Water Table	: 5.85 to 9.87 m

11	Topography of Mine	:	Undulating, slopes slightly from North to South.
12	Explosive Requirement	:	22394 kg /Yearly (Permitted-5)
13	Diesel/Fuel requirement	:	2.15 KL/year (For DG set)

Production Details for first five year as per Approved Mining plan

Year	Production of coal (Million Ton)
1 st	0.12
2 nd	0.12
3 rd	0.17
4 th	0.36
5 th	0.32

Solid Waste Management

- Waste Generation will be Nil during the life of mine. It is an underground mine, stone generated during coal mining utilised for side wall packing of the u/g mine galleries.

Water Quality Management

- Underground Mining is planned below the ground water table.
- The rain water during rainy season will be collected in a rain water harvesting pit. Mine water is used for dust suppression and plantation. Garland drain has been made around working shaft.
- Retaining walls along the jore/nalla constructed to prevent water flowing into the lease area
- 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

- Being an underground mine, drilling at surface is not required. Moreover, drilling of roof rock at underground for installation of supports is done in conjunction with water spraying. Drilling of coal hole at underground is undertaken after the complete face has been wetted with water.
- Water sprinkling will be done on the roads of Jitpur
- Water sprinkling at loading area not required since the mode of transport of coal is through aerial ropeways.
- Use of personal protective equipment like dust mask etc shall be put in practice
- Monitoring of the ambient air quality is being carried out as per norm.

Undertakings affirming the following have been submitted:

- No ground water is used for domestic purpose, any mining activities or any other use and therefore undertakes that no ground water will be used for domestic purpose, any mining activities or any other use.
- The Boundary Pillars of the Noonodih & Jitpur mining lease area will be maintained properly.
- One season 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 Noonodih & Jitpur mining lease area.
- e. Sufficient water spray using water tankers will be done for effective dust suppression within the Noonodih & Jitpur mining lease area.
- 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 Jitpur Colliery being an underground mine.

PROJECT SUMMARY

The ToR/EC proposal for Jitpur Underground Mine of 0.7 MTPA capacity in mine lease area of 163.69 ha of M/s SAIL located in village Noonodih Jitpur, Tehsil Jharia cum Jorapokhar cum Sindri, District Dhanbad (Jharkhand) was granted by MoEF&CC on 27.04.2021.

Details of project are given as under:

- i. The project area is covered under Survey of India Topo Sheet No. 731/6 and is bounded by the geographical coordinates ranging from Latitudes 23°42'32" to 23°43'14" N and longitudes 86°23'05" to 86°24'14"E.
- ii. Coal linkage of the project is proposed for Captive use for various Steel plants.
- iii. Employment generation: employment to 347 persons will be provided from the project.
- iv. The project is reported to be beneficial in terms of : The project will further improve the living condition of the people. The project will generate direct as well as indirect employment. The income thus generated will thus improve the beneficiaries living conditions.
- v. Total mining lease area as per block allotment is 163.69 Ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the MoC.
- vi. The land usage pattern of the project is as follows:

Land use details (Area in Ha)

S. No.	LANDUSE	Within ML Area (ha)	Outside ML Area (ha)	TOTAL
1.	Agricultural land	21.34	Nil	21.34
2.	Forest land	Nil	Nil	Nil
3.	Wasteland	37.08	Nil	37.08
4.	Grazing land	Nil	Nil	Nil
5.	Surface water bodies	2.30	Nil	2.30
6.	Settlements	30.01	Nil	30.01
7.	Others (specify)	5.49		5.49
	• Mining Area	54.30		54.30
	• Railway Area	12.12		12.12
	• Other			

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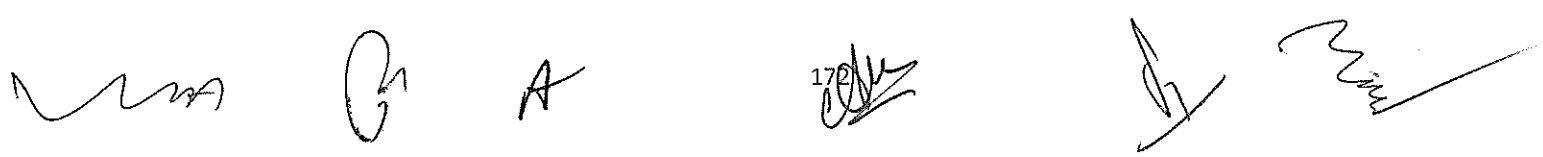
	Infrastructure e • Lawn Area	1.05		1.05
	TOTAL	163.69	Nil	163.69

- i. Total geological reserve reported in the mine lease area is 19.33 MT with 16.59MT mineable reserve. Percent of extraction is 49-50%.
- ii. XVA, XIV, XII seams with thickness ranging from 0.9m to 10.36m are workable. Grade of coal is W-III, stripping ratio **NA**, while gradient is 1 in 6 to 1 in 7.5.
- iii. Method of mining operations envisages by Underground method
- iv. Life of mine is 23 years @ nominal 0.6 MTPA / peak 0.7 MTPA.
- v. Transportation of coal has been proposed by Aerial ropeway from mine to Chasnalla washery.
- vi. No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project.
- vii. The ground water level has been reported to be varying between 5.85m to 9.87m during pre-monsoon and between 3.12m to 6.43m during post-monsoon. Total water requirement for the project is 1510 KLD.
- viii. Public hearing for the project of 0.6/0.7 million ton capacity in an area of 163.69 Ha was conducted on 05.07.2022. Major issues raised in the public hearing included in the Final EIA-EMP report
- ix. Consent to Operate for the existing capacity was obtained from the State PCB on 07.11.2017 and was valid till 31.03.2022 (for production capacity of 11700 T / month)
- x. Kari Jore nalla is flowing along western boundary of lease and no diversion is involved.
- xi. Regular monitoring of ambient air quality is being carried out. The documented report is submitted to JSPCB and also to MoEF&CC along with half yearly EC compliance report. In general, the results of ambient air quality monitoring data were found within prescribed limits except few aberrations which can be attributed to the specific local conditions during the day of sampling.
- xii. **Total capital cost** of the project is Rs. 222.69 Crores, **CSR cost** to be incurred as per the guidelines. As it is an existing mine, most of the area under reference is developed with surface constraints of colliery complex and no R&R is involved. **Environment Management Cost:** Capital provisions for environmental control measures, which includes pollution control arrangement.

During the presentation the following ToR points were found to be non complied or partially complied :

- i. ToR points no. 4 (i), (v), (x) (xi) (xv), (xix), (xxi), (xxii), (xxviii).
- ii. ToR point no. 5 (i).

The project will be taken up for reconsideration after revised EIA / EMP is submitted complying all the ToR points of ToR issued by MoEF&CC, Govt. of India vide letter dated 27.04.2021.

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Day 4 : February 23rd, 2023 [Thursday]

A. Corrigendum ToR letter for :

- i. Serangdag Bauxite Mine with production capacity of Bauxite 1,00,000 TPA, Top Soil 15,350 TPA, OB 1,69,800 TPA & Mineral reject 40,000 TPA with installation of crusher 100 TPH, Screening & Washing of M/s Hindalco Industries Ltd., Village : Serangdag, Hanrup and Pauri, Taluka : Bishunpur & Ghaghra, Dist. : Gumla, Jharkhand (77.89 Ha).

(Proposal No. : SIA/JH/MIN/297490 /2023).

The PA's vide online application no. SIA/JH/MIN/297490/2023 has requested for corrigendum in ToR issued vide letter no. EC/SEIAA/2018-19/2410/2018/106, dated 16.04.2022 with regard to conduct Public consultation in place of Public Hearing as provided OM F. no. 22-4/2020-IA.III, dated 16.02.2021 of MoEF&CC, Govt. of India.

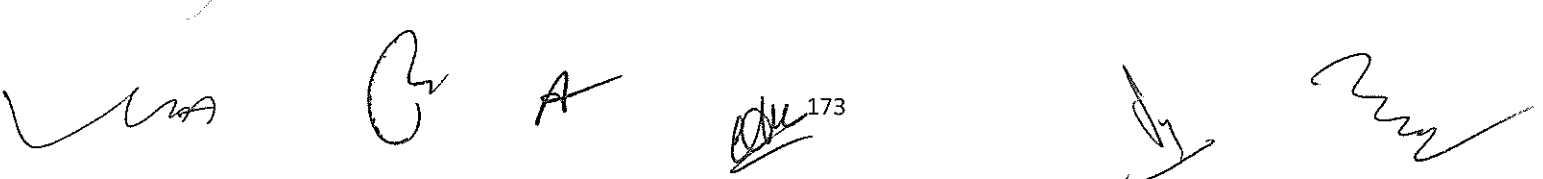
The Committee verified the following aspect of the above Office Memorandum.

- i. No increase in the Bauxite production capacity (100000 TPA).
- ii. No increase in Mining Lease Area.
- iii. No change in mining method, mining plan, mineral transportation, water requirement and reclamation plan.
- iv. Mining is being carried out by Opencast Mechanized mining with Drilling & Blasting.
- v. The mine has not been discontinued operations for a period more than 5 years from the date of application for grant of EC.
- vi. Public Hearing held on 21.06.2004 (100000 TPA) as per EIA notification 1994. The implementation of the issues raised during public hearing were verified the Committee.
- vii. The compliance of the conditions of EC issued vide letter no. J-11015/243/2005-IA.II(M), dated 23.06.2006 of MoEF&CC, Govt. of India were verified by the Committee.

The SEAC considered the proposal in view of OM F. no. 22-4/2020-IA.III, dated 16.02.2021 of MoEF&CC, Govt. of India and recommends to conduct Public Consultation in place of Public Hearing. The ToR point 39 & 45 issued vide ToR letter no. EC/SEIAA/2018-19/2410/2018/106, dated 16.04.2022 shall be substituted as follows :

“The PAs will conduct the Public Consultation for obtaining Environmental Clearance in accordance with procedure prescribed under the EIA notification, 2006.”

Rest other terms & conditions mentioned in the previous ToR letter no. EC/SEIAA/2018-19/2410/2018/106, dated 16.04.2022 shall remain the same.

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ii. Kujam 1 Bauxite Mine with production capacity of Bauxite 1,50,000 TPA of M/s Hindalco Industries Ltd. (HIL), Village : Kujam, Dewragini & Chatam, Taluka : Bishunpur, Dist. : Gumla, Jharkhand (80.87 Ha).

(Proposal No. : SIA/JH/MIN/297482 /2023).

The PA's vide online application no. SIA/JH/MIN/297482 /2023 has requested for corrigendum in ToR issued vide letter no. EC/SEIAA/2018-19/2568/2018/131, dated 18.06.2022 with regard to conduct Public consultation in place of Public Hearing as provided OM F. no. 22-4/2020-IA.III, dated 16.02.2021 of MoEF&CC, Govt. of India.

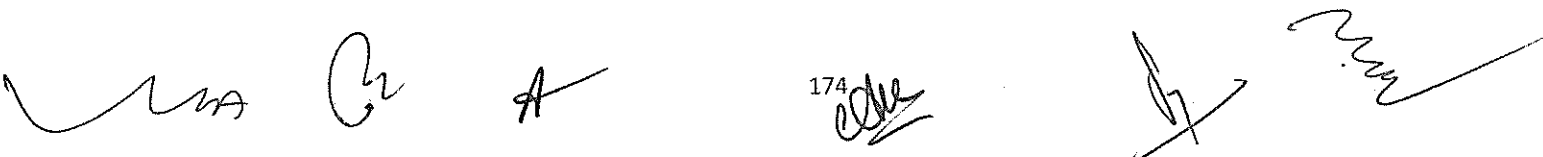
The Committee verified the following aspect of the above Office Memorandum.

- i. No increase in the Bauxite production capacity (150000 TPA).
- ii. No increase in Mining Lease Area.
- iii. No change in mining method, mining plan, mineral transportation, water requirement and reclamation plan.
- iv. Mining is being carried out by Opencast Mechanized mining with Drilling & Blasting.
- v. The mine has not been discontinued operations for a period more than 5 years from the date of application for grant of EC.
- vi. Public Hearing held on 21.06.2004 (150000 TPA) as per EIA notification 1994. The implementation of the issues raised during public hearing were verified the Committee.
- vii. The compliance of the conditions of EC issued vide letter no. J-11015/240/2005-IA.II(M), dated 14.08.2006 of MoEF&CC, Govt. of India were verified by the Committee.

The SEAC considered the proposal in view of OM F. no. 22-4/2020-IA.III, dated 16.02.2021 of MoEF&CC, Govt. of India and recommends to conduct the Public Consultation in place of Public Hearing. The ToR point 1 (a) (xxxix) and 2 (b) (xlv) & (li) issued vide ToR letter no. EC/SEIAA/2018-19/2568/2018/131, dated 18.06.2022 shall be substituted as follows :

“The PAs will conduct the Public Consultation for obtaining Environmental Clearance in accordance with procedure prescribed under the EIA notification, 2006.”

Rest other terms & conditions mentioned in the previous ToR letter no. EC/SEIAA/2018-19/2568/2018/131, dated 18.06.2022 shall remain the same.

The bottom of the page features several handwritten signatures and initials in black ink. From left to right, there is a large, stylized signature, a smaller signature, a simple 'A' initial, a signature with the number '174' written above it, a signature with a large 'B' or similar character, and a long, sweeping signature.

B. Corrigendum EC letter for :

- i. Operation of current plant of capacity 4,15,000 TPA and proposed phase-wise expansion to 1015,000 TPA capacity of Electrolytic Tinplate and Tin-Free Steel material including 28,000 TPA Printed and Lacquered sheets of M/s The Tinplate Company of India Limited at Golmuri Works, Jamshedpur, East Singhbhum, Jharkhand.

(Proposal No. : SIA/JH/IND1/297776/2023)

The PA's vide online application no. SIA/JH/IND1/297776/2023 has requested for necessary correction in Environmental Clearance issued vide letter no. EC/SEIAA/2020-21/2480/2021/367, dated 30.01.2023 with regard to correction is being given below :

It is in reference to the project "Operation of existing plant of capacity 415,000 TPA and proposed phase-wise expansion to 1,015,000 TPA capacity of Electrolytic Tinplate and Tin-Free Steel material including 28,000 TPA Printed and Lacquered sheets at Golmuri, Jamshedpur, Dist. East Singhbhum, Jharkhand" submitted for seeking Corrigendum of Environmental Clearance (EC).

The State Expert Appraisal Committee, Jharkhand, deliberated the project during its 94th meeting held on 10-14.05.2022 and SEIAA, Jharkhand, has approved the TORs in 95th meeting held on 14th, 15th, 16th June, 2022. TOR for the project was issued by SEIAA, Jharkhand, vide letter no. EC/SEIAA/2021-22/2480/2021/163, Dated 18.06.2022. The final EIA / EMP submitted by PP to SEIAA on 04.01.2023 and which was forwarded to SEAC on 04.01.2023. The project was taken for appraisal on 12.01.2023 and based upon presentation by the Environmental Consultant and Project Proponent, EC was Granted by SEIAA, Jharkhand vide Letter No. EC/SEIAA/2020-21/2480/2021/367, Dated : 30.01.2023.

Subsequent, to the Grant of EC, the Project Proponent had applied for Corrigendum in EC vide Proposal SIA/JH/IND/297776/2023 dated 18.02.2023 and the proposed changes were presented to SEAC on 23.02.2023 for considerations. Upon review of the same, SEAC has accepted to release corrigendum as per the appended Table-1.

Corrigendum in EC

Sl. No.	Reference of Approved EC	Description as per approved EC	Revised Description to be mentioned in EC
1	Specific Condition Sl. No. iii	All raw materials to be stored only under covered shed	All raw materials having possibility of generation of fugitive emission to be stored under a covered shed
2	Specific Condition- Mentioned Sl. No. (ii)-	As proposed only propane gas will be used as fuel to reduce particulate	-As proposed, Gaseous fuel (Natural gas/ Propane) will be used as fuel, as both are environmentally friendly fuel

2023/75

	- It should be Sl. No. (xvii)	emissions	and produce insignificant particulate emissions.
3	Specific Condition Mentioned as S No. (iv) - It should be Sl. No. (xix)	On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks and sufficient air pollution control devices shall be provided. The emission of particulate matter from various process units shall conform to the standards prescribed by concerned authorities from time to time.	-Online ambient air quality monitoring and continuous stack monitoring facilities with sufficient air pollution control devices shall be provided for the stacks that using fuel having potential to produce significant particulate emission. The emission of particulate matter from various process units shall conform to the standards prescribed by concerned authorities from time to time.
4	Specific Condition Mentioned S No. (xi) - It should be (xxvi)	-Total water requirement from groundwater sources shall not exceed 495 m ³ /day. All the waste water generated from the process shall be treated in the effluent treatment plant (ETP) and recycled and reused in the process and / or used for dust suppression , green belt development and for various activities at the project site. No effluent shall be discharged outside the premises. 'Zero' discharge shall be strictly adopted.	-Total water requirement (12000 m ³ /day) for plant purpose will be met through surface water and no ground water shall be extracted for plant use. All the waste water generated from the process shall be treated in the effluent treatment plant (ETP) and recycled and reused in the process and / or used for dust suppression, green belt development and for various activities at the project site. No effluent shall be discharged outside the premises. 'Zero' discharge shall be strictly adopted.
5	Specific Condition Mentioned S No. (xii)-	Prior permission for the drawl of 150 m ³ / day water from the ground source shall be obtained	-Total water requirement for plant purpose will be met through surface water and no ground water shall be extracted for plant

	- It should be (xxvii)	from the concerned department and a copy of the letter shall be submitted to this office within 6 months of issues of the environment clearance.	use. Prior permission to be taken from concerned department in case of withdrawal of Ground water and a copy of the letter shall be submitted to this office within 6 months of issues of the environment clearance.
6	XII. Other Conditions (ii)	In view of MOEF and CC O.M No-22-27/2015-1A-III, dated-12.04.2016 The environmental clearance accorded shall be valid for a period of 7 years the project proponent shall not increase production rate and make modifications in process during the validity of Environmental clearance	In view of the latest MOEF notification dated-12.04.2022, validity of EC shall be for a period of 10 Years.
7	Specific Conditions (iv)	PAs to offset (up to 20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, and optimum fenestration. Shading effect and heat islands.	PAs to offset (3-5 %) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, and optimum fenestration. Shading effect and heat islands.
8	II. Statutory Compliance (vi)	The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of groundwater/ from the competent authority concerned in case of surface water required for the project.	The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of groundwater and a copy of the same shall be submitted to SEIAA.

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The SEAC considered the same and recommends for issuance of corrigendum EC with corrected details as stated above. Rest other terms & conditions mentioned in the previous EC letter no. EC/SEIAA/2020-21/2480/2021/367, dated 30.01.2023 shall remain the same.

- ii. **Kabribad Opencast Coal Mine Project (0.6 MTY Capacity) 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/297660/2023)

The PA's vide online application no. SIA/JH/CMIN/297660/2023 has requested for necessary correction in Environmental Clearance issued vide letter no. EC/SEIAA/2022-23/2656/2022/365, dated 30.01.2023 with regard to correction in per year production, the revised details is being given below :

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 (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 Mm³ with an average stripping ratio of 1.43 cum/t. The life of proposed project is 7 years.

178

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 ³ /day	317 m ³ /day	300 m ³ /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
Road	0.91
Safety zone & vacant land	11.65
Total Area	90.84

The coal production from Kabribad OC was as given below:

Year	Kabribad OC Coal Prod. (Mte)
1993-94	0.297
1994-95	0.280
1995-96	0.195
1996-97	0.288
1997-98	0.249

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Year	Kabribad OC Coal Prod. (Mte)
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
2007-08	0.403
2008-09	0.415
2009-10	0.371
2010-11	0.338
2011-12	0.234
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

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Geological and Mining Characteristics of Kabribad OC

Sl. No.	Particulars	Unit	Value
I.	COAL SEAMS		
A.	SEAM THICKNESS		
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.	GRADIENT OF THE SEAM	Degree	6-10
C	AV. SP. GRAVITY OF SEAM		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
D.	DRILLING CATEGORY	Assumed	VIII
E	EXCAVATION CATEGORY	Assumed	Cat.III
			Cat. IV
II	OVERBURDEN		
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 and Lower Khandia	M	0.61-6.50
3.	Drilling Category	Assumed	II-X
4.	Excavation Category	Assumed	Cat. III
			Cat IV
5.	O.B Volume weight	T/cum	2.40
III	QUARRY PARAMETERS		
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)

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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
Total		5.750	3.600

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.

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 mentioned the plot no. of the project is recorded as "Jungle Jhari" in

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		Khatiyani.																																																											
3	DFO Wild Life	: DFO, Wildlife Hazaribagh vide letter no. 1550, dated 16.08.2022 certified that the said project is out of Eco Sensitive Zone of Parasnath 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 proposed project site.																																																											
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)	: Violation Terms of Reference (ToR) granted by MoEF&CC, Govt. of India vide F.No. 23-1/2020-IA.III, dated 27.04.2021.																																																											
8.	Diversion of forest land	<p>Application for diversion of forest land(GMJJ) vide proposal no. FP/JH/MIN/414009/2023, dated 10.01.2023 for area 27.37 Ha.</p> <table border="1"> <thead> <tr> <th colspan="6">DETAILS OF PATCH-WISE GMJJ LAND OF KABIBAD OCP</th> </tr> <tr> <th>SL. NO</th> <th>PATCH NO.</th> <th>MOUZA</th> <th>PLOT NO.</th> <th>AREA (IN HA)</th> <th>TOTAL AREA (IN HA)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>PATCH - 1</td> <td>AKDONI KHURD</td> <td>1492(P)</td> <td>2.90</td> <td>2.90</td> </tr> <tr> <td rowspan="2">2</td> <td rowspan="2">PATCH - 2</td> <td>AKDONI KHURD</td> <td>1501(P)</td> <td>1.42</td> <td rowspan="2">18.49</td> </tr> <tr> <td>KHANDIHA</td> <td>1(P) 400</td> <td>7.37 9.70</td> </tr> <tr> <td>3</td> <td>PATCH - 3</td> <td>KHANDIHA</td> <td>239(P)</td> <td>0.63</td> <td>0.63</td> </tr> <tr> <td>4</td> <td>PATCH - 4</td> <td>KHANDIHA</td> <td>242(P)</td> <td>1.48</td> <td>1.48</td> </tr> <tr> <td>5</td> <td>PATCH - 5</td> <td>KHANDIHA</td> <td>325(P)</td> <td>2.02</td> <td>2.02</td> </tr> <tr> <td rowspan="2">6</td> <td rowspan="2">PATCH - 6</td> <td rowspan="2">KHANDIHA</td> <td>385</td> <td>0.18</td> <td rowspan="2">1.15</td> </tr> <tr> <td>390</td> <td>0.97</td> </tr> <tr> <td>7</td> <td>PATCH - 7</td> <td>CHUNJKA</td> <td>227(P)</td> <td>0.43</td> <td>0.43</td> </tr> </tbody> </table>	DETAILS OF PATCH-WISE GMJJ LAND OF KABIBAD OCP						SL. NO	PATCH NO.	MOUZA	PLOT NO.	AREA (IN HA)	TOTAL AREA (IN HA)	1	PATCH - 1	AKDONI KHURD	1492(P)	2.90	2.90	2	PATCH - 2	AKDONI KHURD	1501(P)	1.42	18.49	KHANDIHA	1(P) 400	7.37 9.70	3	PATCH - 3	KHANDIHA	239(P)	0.63	0.63	4	PATCH - 4	KHANDIHA	242(P)	1.48	1.48	5	PATCH - 5	KHANDIHA	325(P)	2.02	2.02	6	PATCH - 6	KHANDIHA	385	0.18	1.15	390	0.97	7	PATCH - 7	CHUNJKA	227(P)	0.43	0.43
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			8	PATCH - 8	KHANDIHA	130(P)	0.27	0.27
TOTAL								27.37

The SEAC considered the same and recommends for issuance of corrigendum EC with corrected details as stated above. Rest other terms & conditions mentioned in the previous EC letter no. EC/SEIAA/2022-23/2656/2022/365, dated 30.01.2023 shall remain the same.

C. Consideration of Proposals

1. Expansion of Standalone Clinker Grinding Unit for manufacturing of Cement (OPC, PPC, PSC & Composite Cement) from 2.5 Million TPA to 3.0 Million TPA by Internal Modification of VRM main Gear Box and Process optimization of M/s Shree Jharkhand Cement Plant (A unit of Shree Cement Limited), Village : Hansda, P.O. : Burudih, Block : Kharsawan, Distt. : Saraikela Kharsawan, Jharkhand.

(Proposal No. : SIA/JH/IND1/413630 /2023).

Name of the consultant: J.M. Environet Pvt. Ltd., Haryana.

This is a expansion project which has been taken for appraisal on 23.02.2023.

Shree Cement Limited has made an online application vide proposal no. SIA/JH/IND1/413630 /2023, on 07th. January, 2023 along with copy of EIA/EMP Report and Forms (Part A, B and C) seeking Environment Clearance (EC) under Clause 7(ii) of EIA Notification 2006, (as amended thereof) and provision of Office Memorandum (OM) issued by MoEF&CC on 11.04.2022 for the project mentioned above. The proposed project activity is listed at schedule no. 3(b) under Category "B" of the schedule of the EIA Notification, 2006 is therefore, appraised at State Level.

The project of Shree Jharkhand Cement Plant (A Unit of Shree Cement Ltd.) located at Village: Hansda & Burudih, PO: Burudih, Block: Kharsawan, District: Saraikela - Kharsawan (Jharkhand) is Expansion of Standalone Clinker Grinding Unit (under section 7(ii) EIA Notification, 2006, as amended thereof and subsequent office memorandum issued on 11.04.2022) for manufacturing of Cement (OPC, PPC, PSC & Composite Cement) from 2.5 Million TPA to 3.0 Million TPA by Modernization & Process optimization and DG Sets of 1250 KVA along with Railway siding.

Environmental Site Settings:

S. No	Particulars	Details	Remarks
i.	Total land	Total plant area is 44.52 ha (110 acre) including 1.62 ha (4 Acre) area of SCL road	Land use: Industrial

S. No	Particulars	Details	Remarks																																																																														
		outside plant boundary.	Land																																																																														
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014.	Total land is under the possession of the company.	-																																																																														
iii.	Existence of habitation & involvement of R&R, if any.	<p>Plant Site: No habitation exists within the plant site and R&R is not applicable.</p> <p>Study Area:</p> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance (km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Hansda</td> <td>~0.30</td> <td>NW</td> </tr> <tr> <td>Gajudih</td> <td>~1.0</td> <td>North</td> </tr> <tr> <td>Burudin</td> <td>~1.0</td> <td>SE</td> </tr> <tr> <td>Shimla</td> <td>~1.5</td> <td>West</td> </tr> <tr> <td>Mahali Marup</td> <td>~2.0</td> <td>East</td> </tr> <tr> <td>Kendudipa</td> <td>~1.5</td> <td>SE</td> </tr> <tr> <td>Nayadih</td> <td>~2.5</td> <td>West</td> </tr> </tbody> </table> <p>There are approx. 144 other villages in 10 km radius study area.</p>	Habitation	Distance (km)	Direction	Hansda	~0.30	NW	Gajudih	~1.0	North	Burudin	~1.0	SE	Shimla	~1.5	West	Mahali Marup	~2.0	East	Kendudipa	~1.5	SE	Nayadih	~2.5	West	-																																																						
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iv.	Latitude and Longitude of all corners of the project site	<table border="1"> <thead> <tr> <th>Pillar No.</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr><td>A</td><td>22°45'29.36"N</td><td>85°51'21.98"E</td></tr> <tr><td>B</td><td>22°45'29.55"N</td><td>85°51'22.65"E</td></tr> <tr><td>C</td><td>22°45'29.18"N</td><td>85°51'23.70"E</td></tr> <tr><td>D</td><td>22°45'28.44"N</td><td>85°51'24.75"E</td></tr> <tr><td>E</td><td>22°45'26.86"N</td><td>85°51'26.45"E</td></tr> <tr><td>F</td><td>22°45'25.15"N</td><td>85°51'27.31"E</td></tr> <tr><td>G</td><td>22°45'23.66"N</td><td>85°51'29.07"E</td></tr> <tr><td>H</td><td>22°45'22.88"N</td><td>85°51'30.43"E</td></tr> <tr><td>I</td><td>22°45'21.94"N</td><td>85°51'31.47"E</td></tr> <tr><td>J</td><td>22°45'20.87"N</td><td>85°51'36.83"E</td></tr> <tr><td>K</td><td>22°45'20.01"N</td><td>85°51'44.87"E</td></tr> <tr><td>L</td><td>22°45'14.65"N</td><td>85°51'50.64"E</td></tr> <tr><td>M</td><td>22°45'13.79"N</td><td>85°51'52.74"E</td></tr> <tr><td>N</td><td>22°45'13.42"N</td><td>85°51'52.82"E</td></tr> <tr><td>O</td><td>22°45'10.77"N</td><td>85°51'44.08"E</td></tr> <tr><td>P</td><td>22°45'8.89"N</td><td>85°51'37.75"E</td></tr> <tr><td>Q</td><td>22°45'5.70"N</td><td>85°51'27.64"E</td></tr> <tr><td>R</td><td>22°45'5.09"N</td><td>85°51'23.55"E</td></tr> <tr><td>S</td><td>22°45'4.27"N</td><td>85°51'19.34"E</td></tr> <tr><td>T</td><td>22°45'4.27"N</td><td>85°51'17.65"E</td></tr> <tr><td>U</td><td>22°45'7.43"N</td><td>85°51'13.88"E</td></tr> <tr><td>V</td><td>22°45'7.30"N</td><td>85°51'13.23"E</td></tr> <tr><td>W</td><td>22°45'7.53"N</td><td>85°51'12.93"E</td></tr> <tr><td>X</td><td>22°45'11.63"N</td><td>85°51'14.42"E</td></tr> <tr><td>Y</td><td>22°45'14.35"N</td><td>85°51'14.69"E</td></tr> </tbody> </table>	Pillar No.	Latitude	Longitude	A	22°45'29.36"N	85°51'21.98"E	B	22°45'29.55"N	85°51'22.65"E	C	22°45'29.18"N	85°51'23.70"E	D	22°45'28.44"N	85°51'24.75"E	E	22°45'26.86"N	85°51'26.45"E	F	22°45'25.15"N	85°51'27.31"E	G	22°45'23.66"N	85°51'29.07"E	H	22°45'22.88"N	85°51'30.43"E	I	22°45'21.94"N	85°51'31.47"E	J	22°45'20.87"N	85°51'36.83"E	K	22°45'20.01"N	85°51'44.87"E	L	22°45'14.65"N	85°51'50.64"E	M	22°45'13.79"N	85°51'52.74"E	N	22°45'13.42"N	85°51'52.82"E	O	22°45'10.77"N	85°51'44.08"E	P	22°45'8.89"N	85°51'37.75"E	Q	22°45'5.70"N	85°51'27.64"E	R	22°45'5.09"N	85°51'23.55"E	S	22°45'4.27"N	85°51'19.34"E	T	22°45'4.27"N	85°51'17.65"E	U	22°45'7.43"N	85°51'13.88"E	V	22°45'7.30"N	85°51'13.23"E	W	22°45'7.53"N	85°51'12.93"E	X	22°45'11.63"N	85°51'14.42"E	Y	22°45'14.35"N	85°51'14.69"E	-
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S. No	Particulars	Details			Remarks																														
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		AA	22°45'22.28"N	85°51'14.80"E																															
		BB	22°45'25.12"N	85°51'16.45"E																															
v.	Elevation of the project site	175 m to 188 m above mean sea level.			-																														
vi.	Involvement of Forest land if any.	No Forest Land is involved in the plant site.			-																														
vii.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	<p>Plant site: No water body exists within the plant site except for RWH pond.</p> <p>Study area: Following water body fall within 10 km radius:</p> <table border="1"> <thead> <tr> <th>Water Body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Siyaljoro Nala</td> <td>2.0 km</td> <td>SSW</td> </tr> <tr> <td>Sanjay Nadi</td> <td>2.5 km</td> <td>SSE</td> </tr> <tr> <td>Sona Nadi</td> <td>3.5 km</td> <td>NNE</td> </tr> <tr> <td>Kuchai Nala</td> <td>5.0 km</td> <td>SW</td> </tr> <tr> <td>Suru Nala</td> <td>5.5 km</td> <td>NNW</td> </tr> <tr> <td>Sonhua Nala</td> <td>8.0 km</td> <td>WSW</td> </tr> <tr> <td>Kharkhai River</td> <td>8.5 km</td> <td>SSE</td> </tr> <tr> <td>Ragra Nala</td> <td>8.5 km</td> <td>NE</td> </tr> <tr> <td>Kantajuriya Nala</td> <td>9.5 km</td> <td>NNE</td> </tr> </tbody> </table>			Water Body	Distance	Direction	Siyaljoro Nala	2.0 km	SSW	Sanjay Nadi	2.5 km	SSE	Sona Nadi	3.5 km	NNE	Kuchai Nala	5.0 km	SW	Suru Nala	5.5 km	NNW	Sonhua Nala	8.0 km	WSW	Kharkhai River	8.5 km	SSE	Ragra Nala	8.5 km	NE	Kantajuriya Nala	9.5 km	NNE	-
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viii.	Existence of ESZ/ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area.	<ul style="list-style-type: none"> o There is no National Park, Wildlife Sanctuary, Biosphere Reserve, within 10 km radius of the plant site. o There is no notified Elephant Corridor in study area, however, movement of elephant was reported approximately ~2.4 km in West direction from plant site. 			-																														

Earlier, Environmental Clearance was obtained by M/s. Jupiter Cement Industries (Unit of SKJ Coke Industries Ltd.) for Integrated Cement Plant at Village: Hansda, PO. Burudih, District: Saraikela - Kharsawan (Jharkhand) from MoEF&CC, New Delhi vide letter no. J-11011/692/2008-IA. II (I) dated 30th Aug., 2010. Shree Cement Ltd. (SCL) has taken over the plant of SKJ Coke Industries Ltd. on 24th June, 2016. EC was transferred from M/s. Jupiter Cement Industries (Unit of SKJ Coke Industries Ltd.) to Shree Cement Ltd. vide MoEF&CC letter no. J.11011/692/2008-IA.II (I) dated 31st July, 2017. Further, the validity of EC dated 30th Aug., 2010 was extended up to 29th Aug., 2020 vide MoEF&CC letter no. J-11011/692/2008-IA.II (I) dated 18th Oct., 2017. Thereafter, SCL did not intend to install the clinker manufacturing unit in the project. Hence, Environmental Clearance was amended w.r.t. Standalone Clinker Grinding Unit in the name of Shree Jharkhand Cement Plant (A Unit of Shree Cement Ltd.) with cement production capacity of 4.0 Million TPA (Phase - 1: 2.5 Million TPA; Phase -

2: 1.5 Million TPA) along with Captive Power Plant (20 MW), D.G Sets (1250 KVA) and Captive Railway Siding at Village: Hansda, PO.: Burudih, District: Saraikela- Kharsawan, (Jharkhand) vide letter no. J-11011/692/2008-IA.II(I) dated 21st Feb., 2018. Out of the total granted capacity of 4.0 Million TPA cement production capacity, the company have installed only 2.5 Million TPA cement production capacity and D.G. Sets of 1250 KVA along with Captive Railway Siding i.e., Phase - 1 of the project has been commissioned and under operation. Phase - 2 of 1.5 Million TPA capacity along with CPP of 20 MW capacity has not been installed within the stipulated EC validity period; as the same got expired on 29th Aug., 2020. Consent to Operate for the existing Grinding Unit (2.5 Million TPA) has been obtained from JSPCB vide their letter no. JSPCB/HO/RNC/CTO-6972715/2020/210 dated 22nd Jan., 2020 which is valid up to 31st March, 2024.

Khata no. & Plot no. of the project :

Khata No.	Plot No.
36	206
36	207
36	209
36	211
36	327
36	328
36	329
36	560
36	561
87	369
93	341
93	341
74	330
90	318
90	319
90	430
90	434
74	330
87	432
93	395
93	393
11	101
73	312
48	435
73	312
73	312
93	342
75	373
75	380
75	382
75	384
75	392
75	396

Khata No.	Plot No.
75	349
75	336
76	354
76	358
76	359
76	371
76	388
76	390
76	406
76	410
76	418
76	420
76	422
76	423
76	429
76	357
81	337
81	338
89	204
89	231
90	321
90	322
90	323
90	438
11	213
90	437
90	439
11	213
61	212
2	450
36	211
36	328
39	310
76	371
76	422
93	393
83	394
17	248
18	250
18	252
28	217
39	310
29	445
39	442
39	443
74	208
74	330

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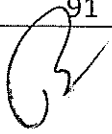
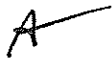



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Khata No.	Plot No.
74	331
74	333
77	332
90	430
90	439
90	439
48	313
48	315
48	324
57	376
57	378
93	340
93	341
93	345
93	342
93	347
93	393
93	395
21	447
24	448
81	337
81	338
81	350
81	356
81	374
81	375
81	379
81	397
36	211
73	312
73	441
36	211
1	210
90	430
7	201
93	341
93	347
73	312
73	312
13	314
13	316
13	317
13	320
13	325
13	436
13	440
91	411

Khata No.	Plot No.
91	389
6	203
6	220
6	221
6	223
7	218
7	219
7	199
7	200
7	202
59	446
60	215
60	449
87	334
87	335
87	351
87	348
87	368
87	377
87	381
87	332
73	312
90	437
73	312
90	430
90	439
76	388
85	427
85	362
85	364
85	366
85	408
85	415
85	416
85	417
85	421
93	345
93	393
93	345
93	393
93	394
93	395
93	393
87	398
86	222
5	385
5	414

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Khata No.	Plot No.
81	379
81	374
81	383
48	85
49	86
49	88
68	459
68	458
73	312
39	310
73	312
93	342
83	339
83	343
83	344
83	346
83	394
83	399
83	400
83	384/559
93	342
93	341
93	341
73	312
68	459
68	459
68	458
68	245
81	433
44	352
44	355
44	360
44	361
44	363
44	365
44	370
44	372
44	386
44	387
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44	424
44	431

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Khata No.	Plot No.
96	428
109	90
109	91
109	92
109	94
109	95
109	96
109	97
109	102
109	103
109	110
109	111
34	98
73	311
73	441
55	205
74	333
14	214
15	216
11	226
16	246
11	229
11	444
17	247
11	249
18	251
6	198
39	310
39	310
29	228
29	243
39	442
51	3
52	5
50	2
50	7
50	15
50	16
50	14
50	15
50	2
50	7
12	87
50	4
50	8
50	11
50	10




192




Khata No.	Plot No.
50	9
27	460
20	462
71	227
68	245
88	326
88	326
43	367
76	371
101	244
101	233
101	234
102	235
102	238
103	237
54	239

Implementation status of the existing EC

S. No.	Facilities	Units	Granted Capacity as per EC dated 21 st Feb., 2018	Implementation Status as on date	Production As per CTO
1.	Cement (OPC, PPC, PSC, Composite Cement)	Million TPA	4.0* (Phase - 1: 2.5 & Phase - 2: 1.5)	Full capacity yet not implemented, only Phase-I: 2.5 Million TPA implemented	2.5 MTPA
2.	CPP	MW	20	Not implemented Yet	-
3.	D.G. Sets	KVA	1250	implemented	1250

The unit configuration and capacity of existing and proposed project is given as below:

S. No.	Plant Equipment / Facility	Existing Facilities as per EC dated 21 st Feb., 2018							
		Total (A + B)		Implemented (A)		Un - implemented (B)		As per CTO	
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity
1.	Cement	VRM/ Ball mill with Roller Press: 1 x 11000 TPD	4.0 Million TPA	VRM: 1 x 7000 TPD	2.5 Million TPA	VRM/ Ball mill with Roller Press: 1 x 4000 TPD	1.5 Million TPA	VRM: 1 x 7000 TPD	2.5 Million TPA
2.	CPP	CPP Boiler	20 MW	-	-	CPP Boiler	20 MW	-	-

Proposed Unit*	Final (Existing + Proposed)
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Configuration	Capacity	Configuration	Capacity
VRM: 1 x 1000 TPD (Modification in existing system)	0.5 Million TPA	VRM: 1 x 8000 TPD	3.0 Million TPA
-	-	-	-

The details of the raw material requirement for the expansion project along with its source and mode of transportation is given as below:

Raw material requirement - OPC/PPC/PSC/Composite Cement

S. No.	Raw Material	Requirement (Million TPA)								Source & Mode of Transportation
		Existing Capacity (2.5 Million TPA)				After Expansion total Capacity (3.0 Million TPA)				
		OPC	PPC	PSC	Composite Cement	OPC	PPC	PSC	Composite Cement	
1.	Clinker	2.38	1.5	1.0	1.0	2.85	1.8	1.2	1.2	SCL's Plant in Chhattisgarh - 550 km, Karnataka - 1500 km and Rajasthan - 1550 km By Road & Rail
2.	Gypsum	0.12	0.12	0.12	0.12	0.15	0.15	0.15	0.15	Rajasthan/ Chemical/ Synthetic/ Imported Gypsum etc. By Rod & Rail 1700 km, Dhamra Port 325 kms
3.	Fly ash	-	0.88	-	0.88	-	1.05	-	1.05	Adhunik Power & Natural Resources Ltd; Kandra, Jamshedpur, Tata Power Ltd.; Jojobera, Hindalco Industries Limited; Muri and other nearby Power plants. By Road 50-165 Km
4.	Slag	-	-	1.38	0.5	-	-	1.65	0.6	Tata Steel Long Product Ltd; Ghamaria, Tata Steel Ltd.; Jamshedpur, Narsingh Ispat Ltd; Chowka and Nearby Steel Plant & MBF's located in Jharkhand/ Odisha By Road 50-100 Km
Total		2.5	2.5	2.5	2.5	3.0	3.0	3.0	3.0	

Cement production will be done 3.0 Million TPA only from various options as OPC, PPC, PSC & Composite Cement or Product Mix.

The total water requirement of Grinding Unit after proposed expansion will be 316 KLD; out of which, the existing water requirement is 280 KLD. Additional water requirement for proposed expansion will be 36 KLD; which is being/ will be sourced from Ground & Surface Water. CGWA

NOC for withdrawal of 490 KLD Ground Water has been obtained *vide* letter no. 21-4/245/JH/IND/ORIG/2018/3523 dated 14th May, 2018 (valid up to 26th April, 2020). Renewal of ground water NOC was issued by CGWA, New Delhi *vide* letter no. CGWA/NOC/IND/REN/1/2021/5911 dated 26.03.2021 (Valid upto 26.04.2023). Permission for withdrawal of 250 KLD surface water from Sona River has been granted *vide* letter no. 2/PMC/WS-25/2010 dated 24th July, 2019.

The existing power requirement is 12.25 MW. Total requirement after expansion will be 14 MW which will be sourced from Jharkhand State Electricity Grid / Solar Power Plant (12 MW) and D.G. Sets (2 x 1250 KVA) for back up.

Baseline Environmental Studies

Period	Post Monsoon Season (Oct. to Dec., 2022)	Additional study (if any)
AAQ parameters at 8 locations	PM _{2.5} - 28.7 to 46.6 µg/m ³ PM ₁₀ - 55.5 to 79.4 µg/m ³ SO ₂ - 5.8 to 16.6 µg/m ³ NO ₂ - 10.87 to 27.8 µg/m ³ CO - 0.54 to 0.78 mg/m ³	
Incremental GLC level	PM = 0.615 µg/m ³ (Level within plant site in East direction) SO ₂ = 0.70 µg/m ³ vel within plant site in East direction) NO _x = 1.10 µg/m ³ vel within plant site in East direction)	
Ground water quality at 08 locations	pH - 7.53 to 7.91 Total Hardness - 146.98 to 278.56 mg/l Chlorides - 40.98 to 108.56 mg/l Fluoride - 0.67 to 0.92 mg/l Heavy Metals - Iron as Fe: 0.18 to 0.31 mg/l	
Surface water quality at 09 locations	pH - 7.12 to 7.93 DO - 6.2 to 7.2 mg/l BOD - 2.2 to 6.2 mg/l COD - 12.6 to 26.9 mg/l	
Noise levels at 08 locations	Noise Level During Day Time - 52.4 to 64.5 Leq dB (A) Noise Level During Night Time - 41.7 to 57.3 Leq dB (A)	
Traffic assessment study findings	Traffic study has been conducted at SH - 5 which is approximately 8.5 km in SSE direction. Transportation of raw material & finished product will be done as per details given below: <ul style="list-style-type: none"> ▪ Clinker - approx. 50% by road & 50% by rail ▪ Fly ash - 100% by road 	


 A series of handwritten signatures and initials are present at the bottom of the page, including a large signature on the left, a circular mark, the letter 'A', a signature with '195' above it, a signature with a downward arrow, and another signature on the right.

	<ul style="list-style-type: none"> ▪ Gypsum (Mineral/ Chemical / Synthetic / Imported) - approx. 50% by road & 50% by rail ▪ Slag - 100% by road ▪ Coal - 100% by road ▪ HSD - 100% by road ▪ Cement - approx. 50% by road & 50% by rail ▪ Biomass - 100% by road ▪ Dolochar - approx. 50% by road & 50% by rail <p>PCU load after proposed project will be 158.875 (Existing) + 73.75 (Additional) PCU/hr. level of service (LOS) will be:</p> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity in PCU/hr.)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>SH-5</td> <td>158.875 (Existing) + 73.75 (Additional) = 232.6</td> <td>625</td> <td>0.37</td> <td>B</td> </tr> </tbody> </table> <p><i>* Capacity as per IRC- 64-1990 & 106-1990 Guidelines.</i></p> <p>Conclusion: The level of service will be "B" i.e., Good for SH – 5. It can be concluded that the present road network is good enough to bear the increased traffic load</p>	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	SH-5	158.875 (Existing) + 73.75 (Additional) = 232.6	625	0.37	B	
Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS								
SH-5	158.875 (Existing) + 73.75 (Additional) = 232.6	625	0.37	B								
Flora and fauna	One Schedule - I species i.e., Elephant (<i>Elephas maximus indicus</i>) has been found within 10 km radius of the study area during field survey; which are categorized as Schedule - I according to (IWPA) Indian Wildlife Protection Act' 1972. Wildlife Conservation / Protection Plan for Elephant is prepared and submitted to DFO for authentication.											

The details of solid and hazardous waste generation along with its mode of treatment/ disposal is furnished as below:

S. No.	Type of Waste	Waste	Source	Quantity Generated (Approx.)	Mode of Treatment / Disposal
1.	SW	Dust	Grinding Unit	0.375 TPA	Dust collected from various APCEs will be totally recycled back into the process.
2.	SW	STP Sludge	STP	1 Kg/day	Will be used as manure in horticulture and greenbelt development.
3.	HW	Used / Spent Oil (5.1) and Waste	Plant maintenance	20 KL / Annum	Will be generated as per Schedule- I of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016; which will be sold to CPCB/ SPCB authorized

				recycler. Used Oil/ Spent oil will be filled in Empty barrels and further sold to CPCB/ SPCB authorized recycler.
		E-Waste	0.05 Tonnes/Annunum	Will be sold to registered vendors as per E-Waste Management Rules, 2016.
		Used Lead acid batteries	50 Nos./Annum	Will be stored in the designated storage area and will be disposed-off/ sold to registered vendors as per Battery Waste Management Rules 2020.

Public Consultation:

Details of advertisement given	Public Hearing Notice published in Newspapers Dainik Jagran & Hindustan Times on 5 th Sept., 2009
Date of Public Consultation	6 th October, 2009 at 11:00 am
Venue	Project Site at Village – Hansda, Post – Burudih, Dist – Saraikela-Kharsawan
Presiding Officer	<ul style="list-style-type: none"> • Sri Chandrashekhar Prasad, Director, DRDA, Saraikela - Kharsawan • Sri R. N. Chaudhary, Regional Officer, Jamshedpur, JSPCB • Sri Manikant Prasad, AEE. H.O, JSPCB
Major issues raised	Issues related to Employment, Environment & Pollution, Plantation, Socio-economic development related, Health etc.

IMPLEMENTATION STATUS:

Expenditure done on various heads and activities are as under:

Sr. No.	Activity Heads	Year Wise Amount (in Lakh)					Total
		2018-19	2019-20	2020-21	2021-22	2022-23	
1.	Educational Program	8.36	8.08	0.43	15.1	3.95	35.9
2.	Health & Family Welfare	7.5	3.57	2.39	40.2	0.55	54.2
3.	Infrastructure Development	3.94	3.84	24.1	14.4	16.8	63.1
4.	Sustainable Livelihood & women empowerment	5.49	5.49	1.75	0.18	0.078	13.0
5.	Social Development & Welfare	29.4	28.4	16	2.11	11.87	87.8
GRAND TOTAL		54.69	49.38	44.67	71.99	33.25	254.0

CSR Expenditure Plan for next 3 years under various heads and activities are as under:

S. No	Major Projects	1st Year	2nd Year	3rd Year	Total Amt. (Rs in
.					

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					Lacs)
HEALTH & FAMILY WELFARE PROGRAMMES					
1	Health check-up camp in local villages	20.00	25.00	25.00	70.00
2	Contribution of medicine in existing Health centers	60.00	75.00	90.00	225.00
3	Improvement by providing medical equipment and infrastructures in existing medical and health centers of local area	50.00	70.00	100.00	220.00
Total		130.00	170.00	215.00	515.00
EDUCATION PROMOTION PROGRAMMES					
1	Scholarship, books, uniform to merit holder children etc.	20.00	25.00	25.00	70.00
2	National/ International day celebration (15 th Aug, 26th Jan, World Environment Day, World Earth Day)	12.00	15.00	17.00	44.00
Total		32.0	40.0	42.0	114.00
CONTRIBUTION IN RELIGIOUS & SOCIAL PROGRAMMES					
1	Contribution in religious festivals, Mela's e.g., Local fares and sports activities	15.00	16.00	19.00	50.00
2	Contribution for various programmes which organized by other social groups & Samiti's such as Mass Marriages etc.	40.00	40.00	49.90	129.90
Total		55.00	56.00	68.90	179.90
COMMUNITY INFRASTRUCTURE DEVELOPMENT PROJECTS					
1	Construction of community center, roads in nearby villages	250.00	400.00	500.00	1150.00
2	Drinking Water Treatment plant and supply	20.00	25.00	30.00	75.00
3	Greenbelt development	25.00	40.00	60.00	125.00
4	Rebate on cement for local works	70.00	90.00	150.00	310.00
Total		365.00	555.00	740.00	1660.00
Grand Total					2468.90

Cost for expansion will be 2.4 Crores only, whereas the existing capital cost of the project was Rs. 537.80 Crores. The total Capital cost for the after expansion will be Rs. 540.20 Crores. Capital cost for environmental protection measures for expansion will be 0.30 Cr and the annual recurring cost for expansion will be 0.07 Cr/ annual. The existing cost for environmental protection measures is Rs. 11.70 Crores and the annual recurring cost towards the environmental protection measures is Rs. 1.93 Crores/ annum. Whereas, the total cost for environmental protection measures after expansion will be as Rs. 12 Crores and the annual recurring cost towards the environmental protection measures after expansion will be Rs. 2.0 Crores/ annum. The employment generation from the expansion project is 821 people. The details of cost for environment protection measures are as follows:

Sr. No.	Particulars	Existing Cost of EMP		Additional Cost of EMP		Total after Expansion	
		Capital Cost (Rs. in Lacs)	Recurring Cost /Annum (Rs. in Lacs)	Capital Cost (Rs. in Lacs)	Recurring Cost /Annum (Rs. in Lacs)	Capital Cost (Rs. in Lacs)	Recurring Cost /Annum (Rs. in Lacs)
1	Air Pollution Control	852.0	135.0	-	-	852.0	135.0
2	Environmental Monitoring	201.0	19.0	-	-	201.0	19.0
3	Water Pollution Control	35.0	8.0	-	-	35.0	8.0
4	Noise pollution control	2.0	1.0	-	-	2.0	1.0
5	Occupational health & Safety and Env. Awareness Programme & Wildlife	20.0	10.0	6.0	1.5	26.0	11.5
6	Waste Management	10.0	5.0	4.5	1.0	14.5	6.0
7	Greenbelt and plantation & Monitoring	25.0	10.0	8.5	2.5	33.5	12.5
8	Water Sprinkling	5.0	2.0	7.5	1.0	12.5	3.0
9	RWH and Storm Water Management	15.0	2.0	-	-	15.0	2.0
10	Hazardous Waste handling Management	5.0	1.0	3.5	1.0	8.5	2.0
	Total	1170.0	193.0	30.0	7.0	1200.0	200.0

Existing Greenbelt has been developed in 37.2 acres (15.05 ha), which is about ~33.8 % of the total plant area with 20368 numbers of tree saplings. Density of the plantation will be further improved by planting 17332 numbers of tree saplings.

It has been reported that following will be resource consumption after the proposed change:

Particulars	As per EC dated 21 st Feb., 2018	After proposed change under para 7(ii)	% increase (Approx.)	Remarks
Land (in ha.)	44.52 ha.	44.52 ha.	-	No Change
Greenbelt (in ha.)	15.05 ha.	15.05 ha.	-	No Change
Water (in KLD)	280 KLD	316 KLD	13%	-
Raw Materials (in Million TPA)	Clinker: 2.38 Gypsum: 0.12 Fly Ash: 0.88 Slag: 1.38	Clinker: 2.85 Gypsum: 0.15 Fly Ash: 1.05 Slag: 1.65	20% 25% 19% 20%	Cement production will be done 3.0 Million TPA only either from various options as OPC, PPC, PSC

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				& Composite Cement.
Products (in Million TPA)	4.0 Million TPA	3.0 Million TPA	20%	As per the granted EC, only 2.5 Million TPA of Cement production capacity has been implemented, for which CTO has been obtained with capacity of 2.5 Million TPA on 22.01.2020 & valid upto 31.03.2024

Pollution Load assessment

Particulars	As per EC dated 21 st Feb., 2018 (Implemented Plant Capacity is 2.5 Million TPA)	After proposed change under para 7(ii)	% increase	Remarks
Air	2.8 gm/sec	2.8 gm/sec	-	No increase in Stack emission load, same VRM is for 0.5 Million TPA Expansion
Water	280	316	12.8%	CGWA NOC for withdrawal of 490 KLD Ground Water has been obtained vide letter no. 21-4/245/JH/IND/ORIG/2018/3523 dated 14th May, 2018 (valid up to 26th April, 2020). Renewal of ground water NOC was issued by CGWA, New Delhi vide letter no. GWA/NOC/IND/REN/1/2021/5911 dated 26.03.2021 (Valid upto 26.04.2023).
Solid & Hazardous Waste	SW in form of STP Sludge: 1.0 kg/day.	SW in form of STP Sludge: 1.0 kg/day.	-	No Change
	HW in form of Used / Spent Oil (5.1) and Waste Residue containing oil (5.2): 20 Kl/Annum	HW in form of Used / Spent Oil (5.1) and Waste Residue containing oil	-	No Change

		(5.2): 20 KL/Annum		
Traffic Load	Level of Service– B (0.35 is Volume of PCU/hr. & Capacity in PCU/hr.)	Level of Service– B (0.37 is Volume of PCU/hr. & Capacity in PCU/hr.)	5.7%	Slightly increase by increase the number of trucks, as company is being/ will be taken proper mitigation measures.

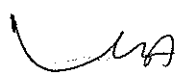
Name of the EIA consultant: M/s. J.M. EnviroNet Pvt. Ltd. [S. No. 111, List of ACOs with their Certificate/ Extension Letter no. NABET/EIA/2023/SA 0172 valid up to 07th August, 2023].

STATUTORY CLEARANCES :

1	CO	:	The CO, Kharsawan vide letter no. 943, dated 29.06.2021 & letter no. 721, dated 28.01.2023 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyani & Register II.
2	DFO Wild Life	:	DFO, Dalma Elephant Project vide letter no. 289, dated 17.02.2023 certified that the proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary.
3	DFO Forest Distance	:	DFO, Seraikela Forest Division vide letter no. 1138, dated 29.06.2021 certified that the distance of notified Forest from the project site is more than 250 m.
4	Previous Environmental Clearance (EC)	:	Earlier, Environmental Clearance was obtained by M/s. Jupiter Cement Industries (Unit of SKJ Coke Industries Ltd.) for Integrated Cement Plant at Village: Hansda, PO. Burudih, District: Saraikela - Kharsawan (Jharkhand) from MoEF&CC, New Delhi vide letter no. J-11011/692/2008-IA. II (I) dated 30 th Aug., 2010. Shree Cement Ltd. (SCL) has taken over the plant of SKJ Coke Industries Ltd. on 24 th June, 2016. EC was transferred from M/s. Jupiter Cement Industries (Unit of SKJ Coke Industries Ltd.) to Shree Cement Ltd. vide MoEF&CC letter no. J.11011/692/2008-IA.II (I) dated 31 st July, 2017. Further, the validity of EC dated 30 th Aug., 2010 was extended up to 29 th Aug., 2020 vide MoEF&CC letter no. J-11011/692/2008-IA.II (I) dated 18 th Oct., 2017. Thereafter, SCL did not intend to install the clinker manufacturing unit in the project. Hence, Environmental Clearance was amended w.r.t. Standalone

		Clinker Grinding Unit in the name of Shree Jharkhand Cement Plant (A Unit of Shree Cement Ltd.) with cement production capacity of 4.0 Million TPA (Phase - 1: 2.5 Million TPA; Phase - 2: 1.5 Million TPA) along with Captive Power Plant (20 MW), D.G Sets (1250 KVA) and Captive Railway Siding at Village: Hansda, PO.: Burudih, District: Saraikela- Kharsawan, (Jharkhand) vide letter no. J-11011/692/2008-IA.II(I) dated 21 st Feb., 2018.
5	Consent to Operate (CTO)	: Consent to Operate for the existing Grinding Unit (2.5 Million TPA) has been obtained from JSPCB vide their letter no. JSPCB/HO/RNC/CTO-6972715/2020/210 dated 22 nd Jan., 2020 which is valid up to 31 st March, 2024.
6	CGWA	: CGWA NOC for withdrawal of 490 KLD Ground Water has been obtained vide letter no. CGWA/NOC/IND/ORIG/2018/3523 dated 14 th May, 2018 (valid up to 26 th April, 2020). Renewal of ground water NOC was issued by CGWA, New Delhi vide letter no. CGWA/NOC/IND/REN/1/2021/5911 dated 27.04.2020 (Valid upto 26.04.2023). Permission for withdrawal of 250 KLD surface water from Sona River has been granted vide letter no. 2/PMC/WS-25/2010 - 958 dated 24 th July, 2019.
7	EC compliance report and Action taken report of Public Hearing	: Ministry of Environment, Forest and Climate Change, Govt. of India Integrated Regional Office, Ranchi, Jharkhand has certified/monitored the compliance report vide File No. 103-539/ROR-2018/924, dated – 21.02.2023 of previous Environmental Clearance issued vide letter no.- J-11011/692/2008-IA-II(I), dated 21.02.2018 of MoEF & CC alongwith action taken report for the observation raised in certified/monitored compliance report by IRO, MoEF & CC, Ranchi.

Based on the presentation made and information provided, the Committee decided that the proposal for Expansion of Standalone Clinker Grinding Unit for manufacturing of Cement (OPC, PPC, PSC & Composite Cement) from 2.5 Million TPA to 3.0 Million TPA by Internal Modification of VRM main Gear Box and Process optimization of M/s Shree Jharkhand Cement Plant (A unit of Shree Cement Limited), Village : Hansda, P.O. : Burudih, Block : Kharsawan, Distt. : Saraikela Kharsawan, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – VI.

 A









2. Proposed Multistoried Residential Project (B+G+12 multi storied Residential Apartment with Retail Area and public utility) of M/s Creative Homes, Village : Dobo, P.O. : Mango, P.S. : Chandil, Distt. : Saraikela Kharsawan, Jharkhand.

(Proposal No. : SIA/JH/INFRA2/418530 /2023).

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

This is a new project which has been taken for appraisal on 23.02.2023.

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 sqm. and development area is less than 50 ha.

Item	Details		
Project Name	Proposed Multistoried Residential Project [B+G+12 multi storied Residential apartment with Retail Area and public utility] at Village DOBO, P.O. Mango, PS Chandil, District – Saraikela Kharsawan-831012, Jharkhand of M/s. Creative Homes.		
Location	Revenue Plot No. 957 of Village-, Dobo, P.O. Mango , PS Chandil, District – Saraikela Kharsawan-831012., State -Jharkhand		
Total Built-Up Area & its break - up	S. No.	Description	Total Area (S.qm.)
	1	Total Plot Area	6369.85
	2	Permissible Coverage area (35.00 %)	2229.45
	3	Proposed Coverage Area (31.90%)	2031.93
	4	Perm. FAR Area (3.000)	19109.55
	5	Total Perm. FAR area	19109.55
	6	Residential FAR	17853.65
	7	Commercial FAR	235.33
	8	Special FAR	987. 19
	9	Proposed FAR Area	19076.17
	10	Total Proposed FAR Area	19076. 17
	11	Consumed FAR (Factor)	2.99
Particular	Residential Block	Retail Area, Community Hall+Office, Library,Gaming Room, Gym & Yoga Center	
Height	45 Meter (max.)		
Number of Block	1 Block with 3 towers (B+G+12)	Retail area -235.33 sqm in Ground floor	

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Population	Total No. of Occupancy: 824	Total no. of population: 607																																				
Municipal Solid Waste	Total Waste =492 Kg/day (~ 0.492 T/day) Bio-Degradable = 197 Kg/day or say 0.197 T/day Non-Biodegradable= 295 Kg/day or say0.295 T/day																																					
Parking	Total 198 ECS (Equivalent Car Space Provided) provided for residential area and visitors. Total no. of parking provided for Two-wheeler are 181.																																					
	<table border="1"> <thead> <tr> <th rowspan="2">Vehicle Type</th> <th colspan="2">Reqd.</th> <th colspan="2">Prop</th> </tr> <tr> <th>No.</th> <th>Area in SQM</th> <th>No.</th> <th>Area in SQM</th> </tr> </thead> <tbody> <tr> <td>Total Car</td> <td>151</td> <td>1887.50</td> <td>184</td> <td>2300.00</td> </tr> <tr> <td>Total Visitor Parking</td> <td>14</td> <td>175.00</td> <td>14</td> <td>175.00</td> </tr> <tr> <td>Total Two Wheeler</td> <td>15</td> <td>30.00</td> <td>181</td> <td>362.00</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>2975.14</td> </tr> <tr> <td>Other Parking</td> <td>-</td> <td>-</td> <td>-</td> <td>850</td> </tr> </tbody> </table>				Vehicle Type	Reqd.		Prop		No.	Area in SQM	No.	Area in SQM	Total Car	151	1887.50	184	2300.00	Total Visitor Parking	14	175.00	14	175.00	Total Two Wheeler	15	30.00	181	362.00					2975.14	Other Parking	-	-	-	850
Vehicle Type	Reqd.		Prop																																			
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Total Visitor Parking	14	175.00	14	175.00																																		
Total Two Wheeler	15	30.00	181	362.00																																		
				2975.14																																		
Other Parking	-	-	-	850																																		
Power Requirement	Total Power Required: 850 KW. The power shall be sourced by (State Electricity Board). DG Set: 01 no. of DG sets having total capacity of 500 KVA Total Solar Lighting 61 KW (5% of total electricity consumption)																																					
RWH Pits	2 Nos of RWH Recharge pit s																																					
Plot Area	6369.85 sqm or 1.574 Ac or 0.637 Ha																																					
Proposed Ground Coverage	2031.9 sqm (31.9 % of the plot area)																																					
Green belt/Plantation Area	980 sqm (15.4 % of the plot area)																																					
Internal Road & Paved Area	927 sqm (14.6 % of the plot area)																																					
Other services	2431sqm (38.2% of the plot area)																																					
Total Built Up Area	26,534.25 sqm																																					
F.A.R	2.99																																					
Maximum height of building	45																																					
Total no. of Dwelling Units	Total: 137 (Residential flats – 22 nos. 2BHK+91 no. 3 BHK & 24nos. 4BHK Units)																																					
No. of Floors	Basement, Ground Floor and 1 st to 12 th Floor																																					
Total Project Cost	Rs. 77.16 Crores.																																					
EMP Cost (Construction Phase)	Capital Cost: Rs. 135.15 Lakhs Recurring Cost: Rs. 4.00 Lakhs																																					
EMP Cost (Operational Phase)	Capital Cost: Rs.18.8 Lakhs Recurring Cost: Rs. 7.3 Lakhs																																					
Disaster Management	Separate Assembly Points marked for each section and project as a whole. Residents will be made aware of the safety protocols and escape routes.																																					

Latitude & Longitude of the project :

Point	Latitude	Longitude
A	22°50'28.69"N	86°10'8.47"E
B	22°50'30.35"N	86°10'8.56"E
C	22°50'28.37"N	86°10'13.21"E
D	22°50'29.87"N	86°10'13.27"E

Khata no. & Plot no. of the project :

Khata no.	Plot no.
145	957

❖ **Water & Wastewater**

Water Demand	Residential	Total	Source
Domestic	85 KLD	85 KLD	Fresh Water
Flushing	46 KLD	46 KLD	Treated Water
Horticulture, road and vehicle washing, HVAC/discharge to nearest drian	--	57 KLD	Treated Water
Total	131.0 KLD	188 KLD	

STP: STP of capacity 140 KLD, based on MBBR technology will be installed. Wastewater generated 103 KLD will be processed in the STP and treated water 103 KLD will be reused for various purposes, such as flushing, horticulture, etc. Excess treated water 40 KLD will be discharged to public sewer after meeting the CPCB Standards (Only during rainy season).

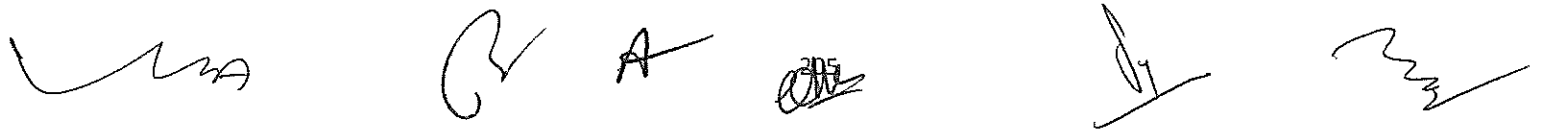
❖ **Connectivity**

Road

Site is flat land with maximum elevation of 146.49 m AMSL. Project site is well connected with road. site also connects to NH-33 which is Nearer (3.30Km) to the project site towards East direction. Approach road for the proposed project site Connects with Mango Road at a distance of 0.35 km in South direction. Mango Road connects to Marine Drive Road at a distance of 0.61 Km through Domuhani Bridge.

Railway

Adityapur railway station is 6.5 km away in South. Tata Nagar railway station is 8.6 km away in SSE,



Air

Sonari Airport 2.90 km in South. Google Map Showing Surroundings of Project site

❖ **Project Surroundings**

Project site is located in Sareikela Kharsawan Zila Parishad area.

Nearest Airport	- Sonari Airport
Nearest Highways	- NH-33
Nearest Railway Station	- Adityapur Railway Station
Nearest City	- Jamshedpur-1.3 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
Wildlife Sanctuary	- Dalma WLS situated at 4.77 Km
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.

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. 0.492 T/day.

- Biodegradable Waste – 0.197 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 250 kg/day.
- Non-biodegradable or recyclable – 0.295 Ton/day. (Papers, cartons, thermo-cool, plastics, glass etc.)
- Non-recyclable wastes will be disposed through Govt. approved agency with help of local body (Seraikela Zila Parishad).
- Total area for storage and segregation of waste = 6 M²
- Total area requirement for organic waste composting = 25 M²

❖ **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 (61 KW (5% of total power requirement) 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. 1588, dated 03.08.2022 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. 1304, dated 09.09.2022 certified that proposed project is out of Eco Sensitive Zone of Dalma Wildlife Sanctuary. The additional comments given by the DFO, Dalma Elephant Project is not appropriate.
3	CO certificate	:	The CO, Chandil vide letter no. 137, dated 15.02.2023 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in Khatiyon & Register II.
4	Fire Department	:	A fire advisory has been issued by Fire Department, Jharkhad, Ranchi vide memo no. 1237/tech./2022, Dated: 12.03.2022.
5	AAI NOC	:	Airport authority of India issued NOC vide NOC ID JAMS/EAST /B/091721/575455, dated 08.11.2021.

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6	CGWA	:	Application for Permission to Abstract Ground Water for Infrastructure Use vide application no. Application no. 21-4/1218/JH/INF/2023, dated 03.02.2023
7	Assurance for Sewerage Discharge and solid waste disposal	:	Drinking Water and Sanitation Division, Saraikela Letter No. 1144/saraikela Date: 30.07.2022.
8	Building Plan	:	Building plan approved by Saraikela Kharsawan Zila Parishad vide memo no. : 0056, dated 06.01.2023

Based on the presentation made and information provided, the Committee decided that the proposal for Proposed Multistoried Residential Project (B+G+12 multi storied Residential Apartment with Retail Area and public utility) of M/s Creative Homes, Village :Dobo, P.O. : Mango, P.S. : Chandil, Distt. : Saraikela Kharsawan, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I 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.

3. Rohini Expansion OCP (0.75 MTPA) of M/s Central Coalfields Limited (North Karanpura Area),
Village : Tumang, Tehsil : Khalari, Distt.: Ranchi, Jharkhand (67.51Ha).

(Proposal no.: SIA/JH/CMIN/416300/2023)

Name of the consultant: CMPDI, Kanke Road, Ranchi

This is an existing project which has been taken for appraisal on 23.02.2023.

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.

Rohini OCP is an existing project administratively under North Karanpura Area of Central Coalfields Limited, falling in the village Tumang, Block Khalari of Ranchi District Jharkhand. The Project Report of Rohini OCP (0.8 MTPA) was sanctioned in March 1991 with capital investment of 27.18 Crores and the mine came into operation in FY 1992-93. Later, the expansion PR of Rohini OCP (2.0/2.30 MTPA) was approved by CCL Board on 29.09.2008. The project has been in operation as per the approved mining plan and mine closure plan of Rohini OCP (3.0 MTPA / 3.3 MTPA & 255.68 Ha) approved by CCL Board on 24-25.08.2016 and environmental clearance obtained for 3.30 MTPA within 255.68 Ha. from MoEFCC vide letter no: J-11015/227/2007-IA-II (M) Dt. 21.02.2017.

As the mineable reserves within the EC boundary of Rohini OCP is on the verge of exhaustion, it has been planned to exploit coal from 15.61 Ha. of area within the Karkatta block and falling outside the EC Boundary of Rohini OCP (3.30 MTPA and 255.68 Ha).

Therefore, a revised mining plan and mine closure plan of Rohini Expansion OCP has to be prepared for a rated capacity of 0.75 MTPA within the project area of 67.51 Ha. and subsequently approval from CCL Board will be obtained

Rohini Expansion OCP is located just south of Damodar river in Khalari block, Ranchi district of Jharkhand State. K.D Hesalong is situated south of the project while Purnadih OCP and Ashok OCP are situated on the other side of river Damodar. It is covered by the Survey of India topo-sheet no. 73-A/14. It lies between latitudes 23°40'48"N & 23°41'47"N and longitudes of 84°58'46"E & 84°59'17"E

The area is well connected by rail and road. The State Highway No 7 connecting Tandwa with Hazaribagh (40km) via Barkagaon passes 4km south of the block. The nearest railway station is Khalari, which is at a distance of 7 km from the block on the Barkakana-Dehri-on-sone loop line of North-Eastern Railways. Tori is another railway station, located south-west of the block at a crow-fly distance of about 55 km on the above loop line.

The Rohini block is characterized by more or less flat terrain with gentle undulations. Generally, the ground is sloping towards East in major part of the block. In the southern block it slopes

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towards Kendua stream. The minimum and maximum elevation of the area is 416m and 467m respectively. The drainage of the block is controlled by the Damodar River flowing along the eastern boundary of the block. The Kendua stream flowing roughly west to east in southern part discharges into Damodar River.

The mineable reserves within the proposed project boundary has been estimated as 1.90 MT of coal corresponding to a volume of OBR of 5.25 Mcum at an average stripping ratio of 2.76 cum/te. The life of the project is estimated as 3 years for a rated output of 0.75 Mtes of 'G-11' grade coal per annum.

There are three coal seams in the OC Block, which are designated as Middle Dakra, Top Lower Dakra, Upper Dakra Seam. The final depth of the Quarry is around 0-85 m.

Considering the technical parameters of the quarry, i.e gentle dipping of the seam, long strike length of quarry, multiple seam of various thickness ,total life of the project etc, the shovel dumper mining system has been proposed for the project. The benches would be made parallel to the roof and floor of the seam wherever possible.

Presently the Rohini Expansion OC Project substation (1x3 MVA ,11/3.3 KV) is receiving power at 11 kv through one No independent single feeder with ACSR conductor from old KDH substation (1X10 MVA,33/11 KV).This substation is situated near the KDH OCP at a distance of 1.0 km(approx.). The connected loads and energy consumption at optimum production level for the Rohini Expansion Opencast Project is summarized below:-

SN	Particulars	Values
1	Connected Load in Operation (in kW)	6596
2	Annual Energy consumption (in MkWh)	13.65

Water requirement:

Industrial water	Domestic water
309 m ³ /day	142 m ³ /day
The water requirement of the project is fulfilled by the mine water of Rohini OCP.	

The total project area of Rohini Expansion OCP is 67.51 Ha. The proposed land use during mining is as given below:

Sl. No	Land use During Mining	
	Particulars	Area (Ha.)

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1	Quarry	11.93
2	Dump Area	17.26
3	Greenbelt and Safety Zone	4.92
4	Top Soil Storage Area	1.93
5	Coal Stock Yard	1.04
6	Road	1.91
7	Vacant Land and Old void	28.52
Total Project Area		67.51

Rohini Expansion OCP: Details of Mineable Reserves and OB Removal:

Year	Coal Production (MT)	OB Removal (Mcum)	Stripping Ratio (cum/te)
1	0.40	1.10	2.76
2	0.75	2.07	2.76
3	0.75	2.08	2.76
TOTAL	1.90	5.25	2.76

LAND DETAILS:

NAME OF MOUZA: - TUMANG

THANA No.

Village – Tumang - 5

KHATA No.

Tumang –

Tenancy Land – 10,11,14,16,17,27,28,29,38,42,46,47

GMK, GMJJ, Forest – 44

GMA – 45

PLOT No.

Tumang –

Tenancy

80,175,176,180,183,211,213,218,222,224,234,242,256,257,258,259,260,418,419,420
,422,424,425,180/549,224/550,411(P),413(P),160,165,172,182,171,173,174,177,178
,179,217,219,220,221,231,232,233,235,237,239,240,241,247,250,251,253,254,255,4
26,427,430,431,432,433,434,435,436,437,438,236,441,161,162,163,164,166,170,206
,207,208,209,210,214,215,216,223,229,230,243,244,245,246,248,249,252,428,429,4
39,415,416,409(P),262,410,181,184,188,228,169,167,168

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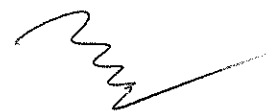
GMK – 81,238,417,423,440, 412(P), 421(P), 79(P),

Forest – 261(P), 263(P),35(P),35/560(P),404(P), 421(P), 48(P),48/561(P), 79(P),

GMA - 212,225,226,227

LAND FALLING IN VILLAGE-TUMANG, THANA No.5, CIRCLE -KHALARI								
KHATA NO.	PLOT NO.	TOTAL AREA AS PER KHATIAN (IN ACRES).	AREA REQUIRED FOR ROHINI EXPANSION OCP (IN ACRES)					TOTAL
			TENANCY	GMK	GMA	FOREST	GMJJ	
44	35(P)	79.40				13.84		13.84
44	48(P)	53.60				19.77		19.77
44	79(P)	44.50		3.03		17.79		20.82
10	80	0.14	0.14					0.14
44	81	0.60		0.60				0.60
44	261(P)	41.50				22.04		22.04
38	262	1.20	1.20					1.20
44	263(P)	52.00				38.35		38.35
44	404(P)	15.50				1.58		1.58
29	409(P)	2.25	1.16					1.16
38	410	0.83	0.83					0.83
11	411(P)	3.17	1.98					1.98
44	412(P)	0.98		0.67				0.67
11	413(P)	1.23	0.69					0.69
44	421(P)	7.20		0.10		1.28		1.38
44	35/560(P)	5.00				1.98		1.98
44	48/561(P)	7.85				1.18		1.18
14	160	0.13	0.13					0.13
28	161	0.33	0.33					0.33
28	162	0.34	0.34					0.34
28	163	1.40	1.40					1.40
28	164	0.03	0.03					0.03
14	165	0.05	0.05					0.05
28	166	0.07	0.07					0.07
47	167	0.06	0.06					0.06
47	168	0.09	0.09					0.09
46	169	0.79	0.79					0.79
28	170	0.39	0.39					0.39
16	171	0.16	0.16					0.16
14	172	0.84	0.84					0.84
16	173	0.06	0.06					0.06
16	174	0.17	0.17					0.17
11	175	0.21	0.21					0.21
11	176	0.34	0.34					0.34
16	177	0.38	0.38					0.38
16	178	0.09	0.09					0.09

16	179	0.20	0.20					0.20
11	180	0.23	0.23					0.23
42	181	0.35	0.35					0.35
14	182	0.58	0.58					0.58
11	183	0.26	0.26					0.26
42	184	0.02	0.02					0.02
42	188	0.54	0.54					0.54
28	206	0.17	0.17					0.17
28	207	0.02	0.02					0.02
28	208	0.15	0.15					0.15
28	209	0.30	0.30					0.30
28	210	0.79	0.79					0.79
11	211	1.20	1.20					1.20
45	212	0.11			0.11			0.11
11	213	0.52	0.52					0.52
28	214	0.14	0.14					0.14
28	215	0.73	0.73					0.73
28	216	0.55	0.55					0.55
16	217	0.60	0.60					0.60
11	218	0.15	0.15					0.15
16	219	0.57	0.57					0.57
16	220	0.02	0.02					0.02
16	221	0.02	0.02					0.02
11	222	0.75	0.75					0.75
28	223	0.39	0.39					0.39
11	224	0.07	0.07					0.07
45	225	0.57			0.57			0.57
45	226	0.01			0.01			0.01
45	227	0.02			0.02			0.02
42	228	0.01	0.01					0.01
28	229	0.06	0.06					0.06
28	230	0.38	0.38					0.38
16	231	0.30	0.30					0.30
16	232	0.31	0.31					0.31
16	233	0.36	0.36					0.36
11	234	0.44	0.44					0.44
16	235	0.42	0.42					0.42
17	236	0.07	0.07					0.07
16	237	0.71	0.71					0.71
44	238	0.49			0.49			0.49
16	239	0.44	0.44					0.44
16	240	0.14	0.14					0.14
16	241	0.09	0.09					0.09
11	242	0.55	0.55					0.55
28	243	0.06	0.06					0.06
28	244	0.26	0.26					0.26
28	245	0.16	0.16					0.16
28	246	0.24	0.24					0.24

16	247	0.05	0.05					0.05
28	248	0.27	0.27					0.27
28	249	0.15	0.15					0.15
16	250	0.06	0.06					0.06
16	251	0.10	0.10					0.10
28	252	0.06	0.06					0.06
16	253	0.32	0.32					0.32
16	254	0.38	0.38					0.38
16	255	0.62	0.62					0.62
11	256	0.05	0.05					0.05
11	257	0.29	0.29					0.29
11	258	0.12	0.12					0.12
11	259	0.03	0.03					0.03
11	260	1.06	1.06					1.06
29	415	0.87	0.87					0.87
29	416	0.65	0.65					0.65
44	417	0.08		0.08				0.08
11	418	0.23	0.23					0.23
11	419	0.26	0.26					0.26
11	420	0.15	0.15					0.15
11	422	0.76	0.76					0.76
44	423	0.08		0.08				0.08
11	424	1.56	1.56					1.56
11	425	1.13	1.13					1.13
16	426	0.40	0.40					0.40
16	427	0.08	0.08					0.08
28	428	0.06	0.06					0.06
28	429	0.10	0.10					0.10
16	430	0.03	0.03					0.03
16	431	0.21	0.21					0.21
16	432	0.12	0.12					0.12
16	433	0.08	0.08					0.08
16	434	0.08	0.08					0.08
16	435	0.25	0.25					0.25
16	436	0.10	0.10					0.10
16	437	0.12	0.12					0.12
16	438	0.10	0.10					0.10
28	439	3.12	3.12					3.12
44	440	1.54		1.54				1.54
27	441	1.00	1.00					1.00
11	180/549	0.33	0.33					0.33
11	224/550	0.08	0.08					0.08
TOTAL AREA IN ACRE			41.68	6.59	0.71	117.81	0.00	166.79
TOTAL AREA IN HECTARE			16.87	2.67	0.29	47.68	0.00	67.51

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	Land has been acquired under LA Act 1894 FC diversion : Stage II ref no8-60/1994-FC Dt. 30.07.2015
2	CO	:	The CO, Khalari vide letter no. 729(ii), dated 02.12.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyan & Register II.
3	DFO Wild Life	:	DFO, Wildlife Division Ranchi vide letter no. 1148, dated 28.12.2022 and letter no 47 dated 11.01.2023 certified that the said project is out of Eco Sensitive Zone of Palkot Wildlife Sanctuary.
4	DFO Forest Distance	:	DFO, Ranchi Division vide letter no. 134, dated 09.01.2023 certified that the distance of reserved / protected forest is less than 250 m from proposed project site.
5	Diversion of forest land	:	Diversion of 74.81 ha of forest land by MoEF&CC, Govt. of India vide : i. F.no. 8-60/1994-FC dated 24.01.2013. ii. F.no. 8-60/1994-FC dated 30.07.2015.
6	Previous EC	:	Previous EC granted by MoEF&CC, Govt. of India vide letter no. J-11015/227/2007-IA.II(M)pt dated 21.02.2017
7	Existing CTE	:	CTE granted by JSPCPB vide Ref. no. JSPCB/HO/RNC/CTE-1309023/2018/284 dated 26.03.2018
8	Existing CTO	:	CTO granted by JSPCPB vide Ref. no. JSPCB/HO/RNC/CTO-14755723/2023/15 dated 03.01.2023

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 20, 21, 22, 23 & 24.02.2023, the Committee recommends for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure VII.

4. Jharkhand Laiyo Phase - I OCP (1.0 MTPA) of M/s Central Coalfields Limited (Eastern part of West Bokaro), Village : Laiyo, Tehsil : Mandu, Distt.: Ramgarh, Jharkhand (147.38 Ha).

(Proposal no.: SIA/JH/CMIN/416147/2023)

Name of the consultant: CMPDI, Kanke Road, Ranchi

This is expansion project which has been taken for appraisal on 23.02.2023.

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) Mining of minerals (Coal) as per EIA Notification, 2006.

Introduction: Jharkhand-Laiyo OCP is an existing mine administratively under Hazaribagh Area of Central Coalfields Limited. Mining Plan of Jharkhand-Laiyo (Phase-I) OCP in 147.38 Ha with rated capacity of 1 MTPA was approved by CCL board's 524th meeting on 17.01.2023.

Jharkhand Expansion OCP was granted EC from MOEF&CC vide letter no. J-11015/03/2015-IA-II(M) dated 08.02.2017 for the capacity of 2.7 MTPA for the area of 261.84 Ha. Life of mine was 6 years as per the granted EC. A fresh mine plan has been formulated by adding 25.55 ha. additional fresh land, which is of notified forest land in nature (the part of forest land stage-I obtained for 78.59 ha. for Laiyo UGP). The 140.01 Ha. land, which will be not utilized as per present mining plan has been truncated from the granted EC boundary of 261.84 ha. Therefore, only 121.83 ha. of previous EC area and 25.55 ha. additional fresh land has been included in new mining plan naming Jharkhand-Laiyo Phase I OCP. The total area of mining plan of Jharkhand Laiyo OCP is 147.38 Ha.

Location: The proposed Jharkhand-Laiyo (Phase-I) OCP is in eastern part of West Bokaro Coalfield of Central Coalfields Limited in Jharkhand state. It is covered under the Survey of India Topo Sheet No- 73E/9 and is bounded between latitudes 23°46'53"N to 23°48'29"N and longitudes 85°36'23"E to 85°37'23"E.

Communication: By road, the project is about 95.00 Km North of Ranchi, the capital city of Jharkhand. The project is approachable through coal trunk route taking off NH-33 at Charhi More to Jharkhand Laiyo OCP by an all-weather metaled road. The block is well connected by road and railway. The nearest railway station is Danae on Barkakana Dehri-on-Sone-Gomohloop line of Eastern Railway about 8 km away. The nearest Railway Siding is N R Siding.

Drainage: The proposed Jharkhand-Laiyo (Phase-I) OCP in general is having flat topography with the general elevation ranging from 300m to 350m. The drainage of the block is controlled by easterly flowing Chutua Nala. Chutua nala flowing from west to east is the main tributary of the Bokaro River and is perennial in nature. The HFL of this nala is 314.74 m as per working plan supplied from Jharkhand OCP.

Mineable Reserve: The project area of present proposal is 147.38 Ha. Proposed capacity of Jharkhand Laiyo OCP is 1.0 MTPA. As per the Mining Plan, total mineable reserves have been estimated as 2.70 M.tonne corresponding to a volume of OBR of 12.76 Mm³ at an average stripping ratio of 4.73 M³ per tonne. Total estimated life of mine is 4 years.

Power Requirement:

Main Source of power: - Damodar Valley Corporation (DVC)

➤ Location of substation: - Near Jharkhand PO Office.



- Distance of main source to substation: - 4 km, Installed capacity: - 5 MVA.
- Annual energy consumption: - 5391262 KWH

Water Requirement: Industrial demand is 1332576 cum/year and domestic water demand is 95040 cum/year. Water demand is being fulfilled by mine discharge water.

Choice of mining method:

Considering the geo-mining conditions of proposed Jharkhand-Laiyo (Phase-I) OCP viz:

- ☑ Moderate Gradient of seam floor,
- ☑ Occurrence of multiple seams with variable thickness

The method of mining proposed to extract coal and OB in Jharkhand-Laiyo (Phase-I) OCP will be open cast mining using shovel-dumper combination with inclined slicing of mining system.

Employment Generation:

Jharkhand-Laiyo (Phase-I) OCP will be a major source of direct and indirect employment for nearby villagers in buffer zone. It is expected to generate employment for 568 people.

Land Requirement:

The total project area of Jharkhand-Laiyo (Phase-I) OCP is 147.38 Ha.

The proposed land use during mining is as given below:

Sl. No	Land use During Mining		Post Mining Land use Plan	
	Particulars	Area (Ha.)	Particulars	Area (Ha.)
1	Quarry	30.80	Quarry left for future extension of the project	30.80
2	Old Internal Dump	67.58	Plantation over old dump area	15.24
			Old dump left for future extension of the project	52.34
3	Infrastructure including stockyard, road	9.98	Infrastructure left for future use in extension of the project	9.98
4	Safety Zone and Greenbelt	8.19	Plantation on Safety Zone & Greenbelt	8.19
5	Undisturbed Land	30.83	Undisturbed Land	30.83
Total Project Area		147.38	Total Project Area	147.38

LAND DETAILS :

Lease Area/Project Area: -147.38 Ha.

Anchal Name: Mandu, Thana: Mandu, Village: Laiyo, Thana No.: 162

Khata No.: -3, 4,15,101,129,130

PLOT No.:-

Laiyo:1873, 1874, 1875, 1876, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910, 2048, 2051, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2129, 2129, 2130, 2131, 2509

Sl. No	Village	Khata No	Plot No.	Total project in
1	Laiyo	15	1873	0.13
2	Laiyo	15	1874	0.13
3	Laiyo	5	1875	0.22
4	Laiyo	129	1876	9.03
5	Laiyo	5	1899	0.16
6	Laiyo	5	1900	0.12
7	Laiyo	5	1901	0.38
8	Laiyo	129	1902	79.62
9	Laiyo	3	1903	0.13
10	Laiyo	5	1904	0.41
11	Laiyo	15	1905	0.04
12	Laiyo	15	1906	0.04
13	Laiyo	5	1907	0.1
14	Laiyo	15	1908	0.28
15	Laiyo	5	1909	0.59
16	Laiyo	129	1910	60.36
17	Laiyo	129	2048	52.03
18	Laiyo	101	2051	0.74
19	Laiyo	101	2057	0.01
20	Laiyo	101	2058	0.03
21	Laiyo	101	2059	2.53

22	Laiyo	101	2060	0.09
23	Laiyo	101	2061	1.17
24	Laiyo	101	2062	1.28
25	Laiyo	101	2063	0.32
26	Laiyo	101	2064	1.61
27	Laiyo	101	2065	1
28	Laiyo	101	2066	1.73
29	Laiyo	101	2067	1.6
30	Laiyo	129	2068	15.15
31	Laiyo	101	2069	1.80
32	Laiyo	101	2070	0.22
33	Laiyo	101	2071	0.33
34	Laiyo	129	2072	2.60
35	Laiyo	129	2120	49.23
36	Laiyo	101	2121	2.64
37	Laiyo	101	2122	1.21
38	Laiyo	101	2123	0.3
39	Laiyo	101	2124	0.1
40	Laiyo	101	2125	3.84
41	Laiyo	101	2126	0.15
42	Laiyo	101	2127	0.08
43	Laiyo	101	2128	0.3
44	Laiyo	101	2129	2.08
45	Laiyo	101	2130	0.34
46	Laiyo	129	2131	53.89
47	Laiyo	130	2509	14.03

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Total (Ha)	147.38
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Break up of type of land:-

Type of Land	Area in Ha.
Forest Land and GMJJ	140.92
Non Forest Land	6.46

The coal production from Jharkhand Expansion OCP was as given below: -

Year	Jharkhand Expansion OCP Coal Prod.(M.te)
2016-17	1.735
2017-18	1.305
2018-19	1.302
2019-20	0.914
2020-21	0.962
2021-22	0.501
2022-23 up to Dec-22	0.238

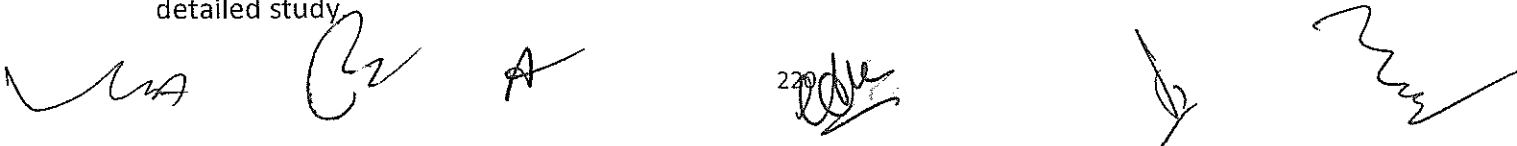
Jharkhand-Laiyo (Phase-I) OCP: Details of Mineable Reserves and OB Removal:

Year	Coal Production (MT)	OB Removal (Mcum)	Stripping Ratio (cum/te)
1	0.50	1.76	4.73
2	1.0	4.33	
3	1.00	5.55	
4	0.20	1.12	
TOTAL	2.70	12.76	

Capital Expenditure:

S. No.	Finance Head	Unit	Values
1.	Total Capital Investment (as on 31.03.2022)	Rs. crores	148.88
2.	Cost of Production at 100% production level (2021-22)	Rs. / tonne	3006.37
3.	Average selling price(21-22)	Rs. / tonne	3120
4.	Profit/Loss at 100% production level(21-22)	Rs. / tonne	113.63

Cost of environmental coast measures will be detailed in EIA EMP report as per requirement and detailed study



STATUTORY CLEARANCES :

1	LOI/Lease docs	:	Land has been Acquired under Coal Bearing Areas (Acquisition and Development) Act, 1957.			
2	CO Certificate	:	The CO, Mandu (Ramgarh) vide letter no. 1396, dated 18.08.2022 has mentioned the plot nos. of the project is recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.			
3	DFO Territorial Certificate	:	DFO, Ramgarh vide letter no. 2095, dated 22.10.2022 certified that the distance of demarcated forest is Zeor (0) m from project site.			
4	DFO Wild Life Certificate	:	DFO, Wildlife Hazaribagh vide letter no. 2318, dated 20.11.2022 certified that the proposed project site is outside of Eco Sensitive Zone of Hazaribagh Wildlife Sanctuary.			
5	Forest Clearance	:	FC granted Area (in Ha.)	Forest Land included in proposal	Ref. No.	Status
			96.28	70.29	8-52/2003-FCDt. 28.05.2004	Stage-II
			57.94	38.50	8-52/93-FC dated 27.03.1997	Stage-II
			6.59	6.59	8-52/2003-FC(Vol I)Dt.08.03.2013	Stage-II
			78.59	25.55	8-71/2003-FC 20.04.2004	Stage-I
				140.92		
6	Mine Plan Approval	:	Ref No.: - CS/BM/524/2023/19, Dated: -07.02.2023.			
7	Previous EC	:	11015/03/2015-IA.II(M) dated 08.02.2017			
8	Consent to Operate (CTO)	:	CTO issued by JSPCB vide Ref. no. JSPCB/HO/RNC/CTO-8631737/2020/1739, dated 19.10.2020.			

This is an expansion proposal. The previous EC no. J-11015/03/2015-IA-II(M), dated 08.02.2017 of MoEF&CC, Govt. of India has been issued in lease area 261.84 Ha for production capacity of 2.7 MTPA. In this proposal addition of 25.55 Ha is proposed. Hence the total area comes to 287.39 Ha. The mine plan & Form-I submitted is for an area of 147.38 Ha only for a production capacity of 1.0 MTPA.

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Hence, the Committee is of the view that this is a not correct expansion project.

Further, during the presentation the compliance of the conditions of previous EC no. J-11015/03/2015-IA-II(M), dated 08.02.2017 of MoEF&CC, Govt. of India were discussed by the Committee. It was found that many of the conditions were not complied or partially complied.

Hence, the Committee will take up the proposal after all necessary correction and compliances are done.

5. Kalupara Stone Mine of M/s Mor Mukat Marketing Pvt. Ltd., Mouza : Kalupara, Thana no. : 07, Anchal : Maheshpur, Distt. : Pakur, Jharkhand (2.43 Ha).

(Proposal no.: SIA/JH/MIN/255473/2022)

Project Category: B2 – Application for Environment Clearance

EC Application for: Boulder Stone: 42453 Cum Per Annum/118868 Ton Per Annum

Morum: Not Present

DG Set : 60 KVA

Mobile Crusher: 1 nos. (250 TPH)

Name of the consultant: Rian Enviro Private Limited, Patna, Bihar.

This is a new project which has been taken for appraisal on 23.02.2023.

PROJECT and LOCATION Details:

Sl	Parameter	Details	
1	Project Name	: Kalupara Stone Mine With Crusher	
2	Lessee:	: CEO- Sri Prakash Kumar Singh	
3	Lease Address	: Mauza- Kalupara, Thana No. 07 Thana + Anchal- Maheshpur, District- Pakur, Jharkhand	
4	Lease Area	: Ha: 2.43 ha	Acres: 6.00 Acres
5	Type of Land	: Non Forest – Rayati Land	
6	Project Cost	: 50 Lakhs	
7	EMP Budget	: Capital: 7.08 Lakhs	Recurring: 3.0 Lakh / year
8	CSR / CER Budget	: Rs. 1.0 Lakhs	
9	New or Expansion	: New Project	
10	Mineable Reserves	: Cu.M.: 424185 Cu. M.	Tonnes: 1187718 Tonnes
11	Mine Life	: 10 years	
12	Man power	: 23	
13	Water Requirement	: 10.69 KLD=0.69 KLD (Drinking & Domestic Uses) + 4 (Plantation) KLD + 6.0 KLD (Dust Suppression).	
14	Water Source	: From Nearby villages by tankers	
15	DG Set / power	: 60 KVA	

222

16	Crusher	:	1 nos. (250 TPH)
17	Nearest Water Body	:	Banslai River, Approx. 8.30 Km towards South Direction
18	Nearest Habitation	:	Kalidaspur Village: Appox. 1.33 Km towards SE
19	Nearest Rail Station	:	Rajgram Railway Station, approx. 14.14 km towards East.
20	Nearest Air Port	:	Deoghar Airport, approx. 104.50 km towards SW
21	Nearest Forest	:	PF, App. 2 km Towards NE Direction PF, App. 3.5 km Towards NORTH Direction PF, App. 3 km Towards NE Direction PF, App. 5km Towards NE Direction PF, App. 3.0km Towards NW Direction PF, App. 2.50km Towards SW Direction PF, App. 4.50 km Towards SW Direction PF, App. 5 km Towards SW Direction
22	Road & Highways	:	SH-18, Approx. 14.46km towards West Direction. SH-245, Approx. 9.0 km towards SW direction

CO-ORDINATES

Sl No.	Latitude	Longitude
1.	24°33'48.0"N	87°43'44.6"E
2.	24°33'46.3"N	87°43'47.3"E
3.	24°33'42.0"N	87°43'43.4"E
4.	24°33'43.8"N	87°43'38.4"E

LAND DETAILS

KHATA NO.	PLOT NO.
06	83/P, 84 & 85/P

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Pakur vide letter no. 2236/M dated 31.12.2021.
2	CO	:	The CO, Maheshpur vide letter no. 823/Ra, dated 22.11.2021 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Pakur vide memo no. 137/M, dated 29.01.2022 certified that there is no any other lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Hazaribag vide letter no. 1883, dated 01.11.2021


			certified that the proposed project site is outside Eco Sensitive Zone of Udhawa Lake Bird Sanctuary.
5	DFO Forest Distance	:	DFO, Pakur Forest Division vide letter no. 1367, dated 04.09.2021 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC – cum – District Magistrate, Pakur vide letter no. 2011/M, dated 14.09.2022 has informed that this project is part of District Survey Report (DSR) of Pakur district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Maheshpur vide letter no. 1133/Vi, dated 09.09.2021 informed that Gram Sabha conducted on 09.09.2021.
8	Mine Plan Approval	:	District Mining Office, Pakur vide letter No. 156/M, Pakur dated 31.01.2022.

Working Details

1	Mining Method	:	Opencast Method, Mechanized Mine, Wagon Drilling & Control Blasting will be deploy
2	Quarry Area	:	5 years – 2.43 ha. Life of Mine – 2.43 ha.
3	Waste Generation	:	2 years–19093 cum Life of Mine – 19093 cum
4	Stripping Ratio	:	1:0.02
5	Working Days	:	300
6	Benches: size & No	:	6m x 6m
7	Elevation of Mine	:	Highest elevation: 106 AMSL Lowest elevation: 105 AMSL
8	Ground Level Elevation	:	104 In AMSL
9	Ultimate Working Depth	:	87 AMSL
10	Water Table	:	78 AMSL
11	Topography of Mine	:	Flat, milled and undulatory
12	Explosive Requirement	:	26 Kg/Day
13	Diesel/Fuel requirement	:	552 Litres/day

Production Details

Year	Production of stone (Cum)	Production of stone (Tonne)	Generation of Waste/O.B in cum
1 st	41976	117533	15242
2 nd	42453	118868	3851



3 rd	42336	118541	00
4 th	42406	118737	00
5 th	42422	118782	00
Total	211593	592460	19093

Land Use

	Existing	First to Fifth Years	After Life of Mine
Category	Area in Hectares	Area in Hectares	Area in Hectares
Quarry	0.00	1.15	1.97ha. (area will be used as water reservoir)
Haul Road	0.00	0.03	0.02
Proposed Crusher	0.00	0.15	Remove from lease Area
Green belt in Safety Barrier	0.00	0.44	0.44
Dump with Parapet wall & Garland drain	0.00	0.18	Nil (Waste dump to be removed and backfilled)
Total area in use	0.00	1.95	2.43
Balance unused area	2.43	0.48	0.00
Total Applied Lease Area	2.43	2.43	2.43

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION		Area/Length	No. of Trees
1	Safety Zone	:	0.44 ha./ 6500 sqm	704 trees @ 1600 trees per ha
2	Other Reclaimed Area	:	NIL	NIL
3	Haul /Approach Road	:	0.41	656 tree (656 m Both side) 1640 /2= 820 m/0.82 Km

- 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 3 x3 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 19093 Cum during the life of mine. During Plan period gritty soil removed will be dumped at north- east side with suitable precaution. Some quantity of the removed gritty soil would also be used for road dressing and plantation. After conceptual period de- stoned area quarry will be reclaimed to the extent possible.

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 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.
- 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.
- 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 is required permission should be taken from 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 Kalupara Stone Mine of M/s Mor Mukat Marketing Pvt. Ltd., Mouza : Kalupara, Thana no. : 07, Anchal : Maheshpur, Distt. : Pakur, Jharkhand (2.43 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IV.

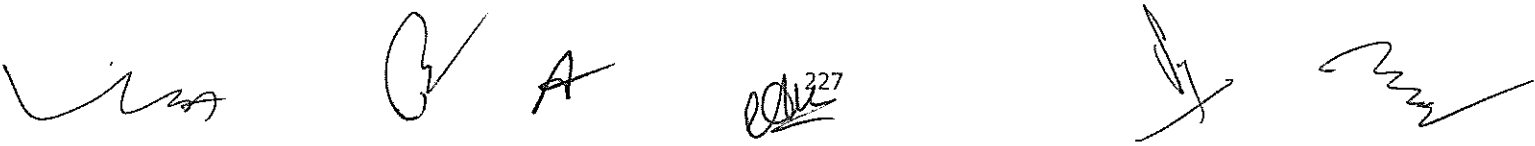
6. Proposed 350 bedded Hospital along with Oxygen Plant for M/s Netaji Subhas Medical College and Hospital a unit of Sitwanto Devi Mahila Kalyan Sansthan at Village: Bhatia & Halthiadih, District: Saraikela Kharsawan, Jharkhand.

(Proposal no. : SIA/JH/INFRA2/419242/2023)

Name of the consultant: Rian Enviro Private Limited, Patna, Bihar.

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

EC Application for Hospital building: Total built-up area of 52184.06 Sqm. (Approx. 9.5% part of the project has already been constructed).



This is a case of violation which has been taken for appraisal on 23.02.2023 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
1.	Latitude	22°48'6.97"N
2.	Longitude	86° 8'17.18"E
3.	Plot Area	19243.20 Sqm. (Or 4.8 acres.)
4.	Project Cost	INR 130 Crores
5.	Built-up Area	52184.06 Sqm.
6.	Green Belt Area	5578.91 Sqm. (~28.9% of the plot area)
7.	Population	Hospital bed: 350 Nos. Attendant with patient (24 hours): 350 Nos OPD Visitors:1225 Nos All Staffs (Doctors, Nurses, Staff):210 Nos Kitchen & Pantry: 297 Nos.
8.	Water Requirement	255 KLD
9.	Fresh Water Requirement	155 KLD
10.	Reuse of Recycled Water	100 KLD
11.	Wastewater Generation	203 KLD
12.	STP Capacity	245 KLD
13.	ETP Capacity	25 KLD
14.	Total Municipal Waste	~418 kg/day Biodegradable Waste: ~ 167 Kg/day Non-Biodegradable Waste: ~251 Kg/day
15.	Power Requirement	3 MVA (JBVNL)
16.	DG Sets	750 KVA 2x125 KVA + 2x250 KVA
17.	RWH Pits	6 (11117.89 Cumec / hour)
18.	Parking	10,000 Sqm.




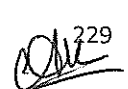


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19.	Connecting road	NH-118: Approx. 0.27 km, towards SSE
20.	National Highway	NH-118: Approx. 0.27 km, towards SSE SH-5: Approx. 0.60 km, towards SW
21.	Nearest Railway Station	Adityapur Railway Station, (2.86 km, SE)
22.	Airport	Birsa Munda Airport, (Approx. 100 km, NW)
23.	Nearest Hospitals	ESI Hospital (Approx. 1.70 km, ESE) TMH Hospital (Approx. 4.36 km, East) Govt, Hospital Gamharia (Approx. 2.89 km, WNW)
24.	Nearest Water Bodies	Sitarampur Reservoir: Approx. 3.73 km, WSW. Kharkai River: Approx. 0.92 km, East. Subarnarekha River: Approx. 3.57 km North
25.	EMP Budget	During Construction: Capital: 33 Lakhs Recurring: 20.5 Lakhs Operational Cost: Capital: 180 Lakhs Recurring: 26 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	Adityapur Railway Station: Approx.2.86 km SE. Birsa Munda Airport: Approx.100 km, West.

Area Summary

S. No.	Description	Area (Sqm.)
1.	Plot Area at Site	19243.20
2.	Green Cover Area (@28.9 % of the plot area)	5578.91
	Green belt area (@15% of Plot area)	2886.48
	Other Green area (@ 13% of Plot area Park, Lawn etc.)	2692.43
3.	Open Area and Paved Area	3162.8
4.	Proposed Ground Coverage (@ 41.87% of net plot area)	8056.49
5.	Proposed FAR (@ 2.24 of plot area)	43106.04
6.	Built-Up Area	52184.06
7.	Height	Approx. 18 m

Co-Ordinates:

1	Latitude	22°48'6.97"N
2	Longitude	86° 8'17.18"E

Land Details:

1	Village- Bhatia & Hathiadih Tehsil-Adityapur Thana No. 60 Dist.- Saraikela-Kharsawan State- Jharkhand	Khata no. 81	Plot No. 301 (P)
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Statutory Clearances:

1	Land Allotment Letter	The land has been allotted by JIADA vide Allotment order no. LA/AD/SW/00860/200 dated 10/03/2022.
2	DFO Certificate	Divisional Forest Officer (DFO), Seraikela Forest Division vide letter no. 32, dated 07.01.2023 certified that the distance of forest boundary from proposed project is less than 250 m as the applied area is notified forest land, which has been transferred to AIADA, Adityapur for non – forestry work vide notification no. वनभूमि-47/2006-1910 व०प०, dated 01.07.2009 of Department of Forest & Environment, Govt. of Jharkhand.
3	DFO wildlife	DFO, Dalma Elephat Project vide letter no. 83, dated 07.01.2023 certified that the proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary.
4	CO certificate	The CO, Gamharia Seraikela vide letter no. 1153 dated 30.12.2022 has certified that proposed project site belongs to forest land, for which Department of Forest & Environment, Govt. of Jharkhand has been transferred the said land to AIADA, Adityapur for non – forestry work vide notification no. वनभूमि-47/2006-1910 व०प०, dated 01.07.2009. CO has also informed that proposed project site has been transferred to M/s Nataji Subhas Hospital vide allotment order no. LA/AD/SW/00860/2022, dated 10.03.2022 for the period of 30 years.
5	Building Plan	Conceptual Plan submitted.

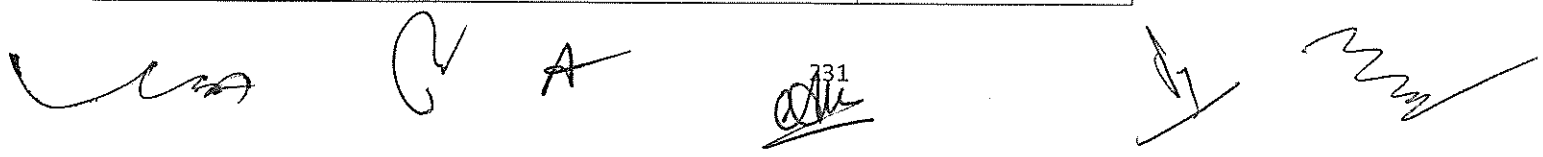







Water and waste water Requirement Details

Sl. No.	Hospital Block	Total Population	LPCD	Domestic	Flushing	Total Domestic water	Total Flushing water	Total Water requirement	Total waste water	
1	Hospital Bed	350	450	300	150	105000	52500	157500	136500	
2	Attendant with patient (24 hours)	350	100	66	34	23100	11900	35000	30380	
3	OPD Visitors	1225	15	10	5	12250	6125	18375	15925	
4	All Staffs (Doctors, Nurses, Paramedical & non Paramedical staff)	210	45	20	25	4200	5250	9450	8610	
5	Kitchen & Pantry	297	35	25	10	7425	2970	10395	8910	
6	Laundry	3500	3500	2450	
						155475	78745	234220	202775	
ETP & STP Requirement										
	Effluent generation @10% of total wastewater	20 KLD	Capacity of ETP (20% higher than total effluent generation)							25 KLD
	Sewage generation @ 90% of total wastewater	203 KLD	Capacity of STP (20% higher than total Sewage generation)							245 KLD
Total treated water generation 162 KLD (@ 80% of total waste water)										
	DG Cooling	750 KVA		4500						
	Irrigation water	5578.91 Sqm @3 l/sqm.		16737						
	Total water requirement (One Time)			255457						
Category						Total (KLD)	Quantity			
Fresh water Req. for domestic purpose						155				



Flushing water Req.	79
Sewage generation (@80% of the fresh water consumption + 100% flushing water)	203
Capacity of STP	245
Recovered water from STP (80% of Waste water)	162
1. Flushing	79
2. Landscaping	16
3. Discharge to Sewer	66

Solid Waste

S. No.	Category of Solid Waste	Waste Generation Rate	Formula	Total Population	Waste generated	Bio-degradable	Non-biodegradable
1.	Attendant with patient (24 hours)	0.3 to 0.6 kg/cap/day	Total Population*0.45	350	157.5	63	94.5
2.	All Staffs (Doctors, Nurses, Paramedical & non Paramedical staff)	0.1 to 0.3 kg/cap/day	Total Population*0.15	210	31.5	12.6	18.9
3.	Clinical Requirement OT/Lab/Nurses Station/Doctors Consultation room etc.	0.1 to 0.3 kg/cap/day	Total Population*0.15	297	45	18	27
4.	OPD Patient @ 3.5 of total no. of Beds	0.1 to 0.3 kg/cap/day	Total Population*0.15	1225	183.75	73.5	110.25
Total					418	167	251
1.	Bio medical waste generation	1 kg/Bed	Total Bed *1 Kg/day	350	350 Kg/day		
2.	OPD BMW			--	35 Kg/day		
Total					385 Kg/day		

ENVIRONMENT MANAGEMENT

Green Belt Development

- Combination of local trees and shrubs are planned within the project site.
- Green belt will be provided in **5578.91 sqm.** (@28.90% 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

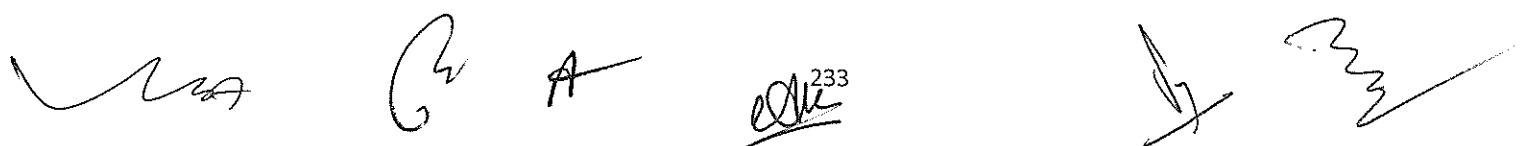
- The site drainage will be planned in such a way that there is no accumulation of water/wastewater within the project premises or in the vicinity of the site.
- Mobile toilets to be provided for construction Labourers.
- Generated waste water will be collected through tankers and dispose to septic tank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

During Operation Phase

- STP of capacity i.e. 245 KLD & ETP of capacity 25 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. 155 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



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- 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 20, 21, 22, 23 & 24.02.2023, the Committee recommends for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure VIII.

7. Common Bio Medical Waste Treatment Facility of M/s Greenland Waste Management Enterprises (GWME) at Mauza : Beliadanga, P.S. : Maheshpur, Distt. : Pakur, Jharkhand
(Proposal No : SIA/JH/INFRA2/406943/2022).

Name of the consultant: Gaurang Environmental Solutions Pvt. Ltd., Jaipur

This is a case of violation which has been taken for reappraisal on 23.02.2023.

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 9th 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 Hon'ble Supreme Court order dated 9th 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.

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 93rd meeting held on 18-27.02.2022 and SEIAA, Jharkhand has approved the violation ToRs in 94th meeting held on 13th, 14th & 15th April, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. 104, date 16.04.2022. The final EIA / EMP submitted by PP to SEIAA on 23.11.2022 and which was forwarded to SEAC on 24.11.2022.

The project involves development of Common Bio Medical Waste Treatment Facility which is categorized under Item 7 (d) (a) (Bio-Medical Waste Treatment Facilities) of the Schedule-Gazette Notification dated 17th April 2015. The project falls under category "B". The total plot area of the unit is 5151.84 sq.m. The land for the proposed project is taken on lease in name of M/s Greenland Waste Management Enterprise (GWME) for the purpose of establishment of a Common Biomedical Waste Treatment Facility only.

Salient Features of The Project :

S. No	Items	Details			
1.	Project name	Proposed Common Bio Medical Waste Management Facility, Pakur			
2.	Project Proponent	M/s Greenland Waste Management Enterprise (GWME)			
3.	Project capacity	As below:			
		S. No.	Particular	No.	Capacity
		1	Incinerator	1	200 kg/hr
		2	Autoclave	1	600 lt/batch
		3	Shredder	2	30 kg/hr x 2 nos.
		4	ETP	1	10 KLD
		5	Sharp pit	1	-
		6	Ash pit	1	-
4.	Category	B			
5.	Project address				
	Khasra numbers	1958, 1964, 1963,1968,1962,1965			
	Village	Mauza Beliadanga			
	Tehsil	P.S. Maheshpur			
	District	Pakur			
	State	Jharkhand			
	Coordinates	Latitude:24°29'23.08"N			

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		Longitude: 87°36'58.59"E		
6.	Nearest CBWTF	At Dhanbad ~220 km from the proposed site		
7.	Total Plot area	5151.84 sq.m. (1.27 acre)		
8.	Waste to be handled	4000 kg/day		
9.	No. of shifts	3		
10.	No. and types of vehicles for transportation/ collection of waste	12 nos. TATA V10: covered: 6 nos. + 1 (standby) TATA V30: covered: 4 nos. + 1 (standby)		
11.	Trips to be made per day	10 trips/ day		
12.	Environmental sensitivity			
13.	Nearest Town/City	Amrapora	5.69 km	WNW
		Pakur	29.15 km	NE
14.	Nearest railway station	Pakur RS	29.3 km	NE
15.	Nearest highway	Amrapara-Maheshpur-Moraroi road	330 mt.	N
		SH 18	5.54 km	WNW
16.	Nearest airport	Sidho Kanhu airport	45.46 km	SW
17.	Nearest river/ water body	Bansloi Nadi	1.0 km	N
		Soru Nala	7.1 km	NNE
		Tantiduba Nala	13.5 km	NNE
		Kandaha Nala	4.8 km	NE
		Telipokhar Nala	10.4 km	ESE
		Suriudi nadi	6.3 km	SSW
		Baru nadi	13.3 km	SSE
		Trighana Nadi	14.4. km	SW
		Makarkandi nala	12.1 km	W
18.	Water requirement	15.4 KLD Daily Fresh: 9.4 KLD Recycled : 6 KLD		
		Source:	Bore well at site	
19.	Waste water generation	7.8 KLD		

	Trade effluent	7 KLD
	Domestic sewage	0.8
	Treatment	Trade effluent: ETP Domestic sewage: Septic tank followed by soak pit
20.	Power requirement	111 kVA (100 kW)
	Source	JBVNL, Jharkhand
21.	Back up source	DG set: 62.5 kVA (1 no.)
22.	Transformer	100 kVA
23.	Manpower	10 persons
24.	Project cost	341.82 Lacs

STATUTORY CLEARANCE

- The DFO, Wildlife Hazaribagh Vide Letter No. 799, Dated 19/04/2021 certified that the proposed project site is outside Eco Sensitive Zone of Udhawa Lake Bird Sanctuary.
- The DFO, Pakur Forest Division vide Letter No. 88 Dated 08/02/2021 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
- The CO, Maheshpur vide Letter No. 66, Dated 25/01/2021 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S Khatiyani & Register II.
- JSPCB, Ranchi vide Ref. no. : PC/PH/DMK/12/2022/B-2352, dated 16.11.2022 informed that Public Hearing conducted on 15.09.2022.

Earlier this proposal was presented in SEAC on 07 - 11.12.2022 in which requisite documents were sought are under –

- i. The criteria for the selection of the site is to be provided.
- ii. TCLP test to be conducted for project site & finding to be submitted.
- iii. Site layout shown was not clear. Clear layout plan showing location of RWH pits, STP and green belt at the project site is to be provided. Pictorial evidence of the same to be provided.
- iv. Details of air pollution control device to be provided.
- v. The impacts due to the project on the environment and the corresponding mitigation measures have not been adequately provided. The impacts has to be re-assessed and the corresponding mitigation measures has to be provided in details.
- vi. Specific area for handling including segregation of BMW waste to be defined and included in site plan.
- vii. Details of hospitals feeding BMW waste to said facility to be provided.
- viii. The BDL values of the water parameters analyzed to be provided.

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- ix. Ecological Damage assessment & remediation plan and natural & community resource augmentation plan has to be re-worked as per MoEF&CC OM dated 28.01.2022 and latest CPCB guidelines.

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 77 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 :-

S. No.	Particulars	Details	Cost (Rs. In Lacs)
1.	Air Environment	Fund allocation to the local govt. hospital for treatment of respiratory diseases	20
2.	Socio economic environment	Establishment of science and computer lab in the neighbouring Govt. School	30
		Construction of rain water harvesting structures (2 nos. @ 2 lacs each:) at various locations such as Govt. school, PHC, community center etc. in nearby villages <i>(Construction of RWH will include cost of pipes to be laid from roof top to the RWH pit, channelization of storm water, and other associated civil costs as well)</i>	2
3.	Energy conservation	Installation of solar powered PV plant (10 KW) at nearby Govt. School	15
4.	Plantation	Tree Plantation (1000 trees) at Govt. School & nearby areas	10
Total cost			77 Lacs

- I. Total budgetary provision with respect to remediation plan and natural and community resource augmentation plan is Rs. 77 Lakh.
- II. Therefore, PAs shall be required to submit a bank guarantee of an amount of Rs. 77 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.
- III. 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.

- IV. 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.
- V. PAs shall take necessary other clearances / permissions under various act and rules if any, from the respective authorities / departments.
- VI. STP of adequate capacity shall be established within the project premises.
- VII. Energy conservation measures adhering to part of ECBC norms shall be complied with.
- VIII. The penalty of rupees 3.76 Lakh being 1.25% of the capital investment incurred and turnover till date (Rs. project cost 3.41 Crores & turnover Rs. 1.40 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.
- IX. 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 Common Bio Medical Waste Treatment Facility of M/s Greenland Waste Management Enterprises (GWME) at Mauza : Beliadanga, P.S. : Maheshpur, Distt. : Pakur, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IX.

8. Paharpur Stone Mine of M/S Sri Santosh Mine at Vill– Paharpur, Thana –Sikaripara, Dist- Dumka, State- Jharkhand. (1.20 ha.)

(Proposal no. : SIA/JH/MIN/418937/2023)

Applied Area :2.97 Acres (1.20 Ha)
 Project Category :B2 – Application for Environment Clearance
 EC Application for : 21132 cum. / year (max)
 Overburden : 21912 m³during plan period.
 DG Set : 20 KVA
 CrusherisNotproposed

Name of the Sathi Planners Private Limited

This is a newproject which has been taken for appraisal on 23.02.2023

PROJECT and LOCATION Details:

Sl.	Parameter	Details
1	Project Name	: Paharpur Stone Mine
2	Lessee:	: ShriSantosh Kumar Dan, S/O Sri Dulal Chandra Dan
3	Lease Address	: At: Mouza- Paharpur, P.O.-Benagaria, Block+P.S.- Shikaripara, District- Dumka, Jharkhand

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4	Lease Area	:	Ha: 1.20	Acres: 2.97
5	Type of Land	:	Non-Forest – Rayati Land	
6	Project Cost	:	Rs. 78 Lakhs	
7	EMP Budget	:	Capital: Rs. 7.91 Lakhs	Recurring: Rs. 1.69 Lakhs/ year
8	CSR / CER Budget	:	Rs. 1.75 Lakhs	
9	New or Expansion	:	New	
10	Mineable Reserves	:	Cu.M.:74,812.50Cu. M.	Tonnes:2,01,993.75
11	Mine Life	:	5 years only	
12	Manpower	:	21 Person	
13	Water Requirement	:	23.27 KLD (Drinking:0.315KLD, Dust Suppression: 18.2 KLD, Plantation: 4.75 KLD)	
14	Water Source	:	<ul style="list-style-type: none"> Water will be Sourced from Abandon (at a distance of 0.40 Km from mine site with the consent of villagers) for Dust Suppression and Plantation. Water will be sourced from Water Tankers, to be purchased locally for Drinking and Domestic Consumption. 	
15	DG Set / power	:	20 KVA	
16	Crusher	:	Not Applicable	
17	Nearest Water Body	:	Brahmani river- 7 km in North direction	
18	Nearest Habitation	:	Paharpur– 2.15 Km	
19	Nearest Rail Station	:	Pinagaria Railway Station 5 km North direction from the mine site.	
20	Nearest Airport	:	KaziNazrul Islam, Ranchi 75.64 km SW direction from the mine site.	
21	Nearest Forest	:	Protected Forest Near Munichua - 1.30 Kms in West direction	
22	Road & Highways	:	Pakka Road – 0.91 Km in East direction. SH 114 – 3.40 Km in North	

CO-ORDINATES

Geo-Coordinates of all corner points of Demarcated Block Boundary (GPS Co-ordinates) Datum: WGS 84		
Corner Point	Latitude	Longitude
1	24°11'41.223" N	87°35'10.042" E
2	24°11'41.134" N	87°35'10.488" E
3	24°11'40.620" N	87°35'10.741" E
4	24°11'40.435" N	87°35'12.591" E
5	24°11'36.611" N	87°35'11.536" E

6	24°11'36.063" N	87°35'10.172" E
7	24°11'36.831" N	87°35'9.110" E
8	24°11'36.783" N	87°35'8.117" E
9	24°11'36.963" N	87°35'7.745" E
10	24°11'39.812" N	87°35'8.404" E
11	24°11'38.859" N	87°35'9.864" E
12	24°11'39.469" N	87°35'10.351" E
13	24°11'40.140" N	87°35'10.447" E
14	24°11'40.552" N	87°35'9.898" E

LAND DETAILS

The lease area is situated near Paharpur

KHATA NO.	PLOT NO.
16	698(P)

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Office, Dumka vide letter no. 757/M dated 29.05.2021
2	CO Certificate	:	The CO, Shikaripara vide letter no. 510/Ra, dated 26.06.2020 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DMO Certificate	:	DMO, Dumka vide memo no. 3140, dated 15.12.2020 certified that no lease area exists within 500 m radius from proposed project site & Total lease area is less than 5 Ha.
4	DFO Wild Life	:	DFO Wildlife Hazaribagh vide letter no. 1942, dated 30.09.2022 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Territorial	:	DFO, Dumka vide letter no. 1240, dated 24.06.2020 certified that the distance of reserved / protected forest is more than 250 metre from proposed project site.
6	DSR	:	The DC-cum-District Magistrate, Dumka vide letter no. 786/ M, dated 04.06.2021 has informed that this project is part of District Survey Report (DSR) at Dumka district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	Gram Sabha conducted on 14.11.2019

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[Signature]

[Signature]

8	Mine Plan Approval	:	Deputy Director Mines, S. P. Circle, Dumka vide memo no. 298/DDM, dated 25.11.2021.
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WORKING DETAILS

1	Mining Method	:	Opencast Mechanized Mining
2	Quarry Area	:	5 years-0.73 ha Life of Mine – 0.80 year
3	Waste Generation	:	Only in first year-21912 cum Life of Mine – Nil
4	Stripping Ratio	:	1:0.02
5	Working Days	:	300 days/year
6	Benches: size & No	:	3 m x 4/5 m , Bench No.- 1 to 7 (Conceptual Period)
7	Elevation of Mine	:	In 129 AMSL to 125 AMSL
8	Ground Level Elevation	:	In 133 AMSL
9	Ultimate Working Depth	:	In 161 AMSL
10	Water Table	:	In 153 MSL and
11	Topography of Mine	:	Gently sloping area
12	Explosive Requirement	:	21.25 kg Per day
13	Diesel/Fuel requirement	:	HSD - 296 liters / day (88.8KL/year)

PRODUCTION DETAILS

Year	Production of Stone		Removal of Soil
	Cum	Tonnes	Cum
1 st Year	21132	57056	21912
2 nd Year	17741	47901	0
3 rd Year	14159	38229	0
4 th Year	12030	32481	0
5 th Year	9420	25435	0
Total	74482	201101	21912

LAND USE

Existing Land Use pattern

Category	Area in Hectares
Quarry	0.00
Road	0.00
Total area in use	0.00
Balance area unused	1.20

Total Leasehold area	1.20
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Proposed Land Use for Current Plan Period

Category	Area in Hectares
Mining Area	0.73
Office	0.008
Dump	0.052
Road	0.01
Garland Drain	0.01
Safety Zone/Green belt	0.39
Unutilized	0
TOTAL	1.20

Land Use pattern at the Conceptual Stage i.e. end of mine




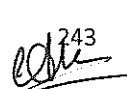


Category	Area in Hectares
Mining Area + Office+ Dump+ Road	0.80
Garland Drain	0.01
Safety Zone/Green belt	0.39
Unutilized	0
TOTAL	1.20

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION	Area/Length	No of Trees
1	Safety Zone	: 0.39 Ha	975
2	Other Reclaimed Area	: 0.000	000
3	Haul /Approach Road	: 910 meters	607Tree both side approach road.

- Gabion Plantation work in the 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 21912 cum during the 1st year plan period. O.B.Dump area is 0.052ha. The O.B. shall be used for backfilling in the end of life of mine of the mining operation.

Water Pollution Control Measures:

- Mining operation will be restricted to the depth of 30m from surface level.
- Quality of dug well will be monitored, in order to ensure the quality of water is not affected.

Air and Noise Pollution Control Measures:

- Dust suppression measures like spraying / sprinkling of water to keep the surface wet.
- Overloading of the truck / tractor trolleys 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:

- Carts or tractor-trolleys will be developed on village roads.
- Tractors-trolleys will be well maintained and PUC certified.
- Timely maintenance of vehicles and their silencers to minimize vibration and sound.
- Minimum use of horns in the village area and silence zone (if any) as applicable.

Undertaking submitted affirming:

- Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- 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.
- 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
- The Boundary Pillars of the proposed mine lease area will be maintained properly.
- One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- 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.
- Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.



6	Project Cost	:	Rs. 105.20 Lakhs
7	EMP Budget	:	Capital: Rs. 19.23 Lakhs Recurring: Rs. 2.24 Lakhs/ year
8	CSR / CER Budget	:	Rs. 3.30 Lakhs
9	New or Expansion	:	New
10	Mineable Reserves	:	Cu.M.: 523908 Cu. M. Tonnes: 1414552
11	Mine Life	:	5 years only
12	Manpower	:	51 Person
13	Water Requirement	:	13.226 KLD (Drinking: 0.765 KLD, Dust Suppression: 5.6 KLD, Plantation: 6.861 KLD)
14	Water Source	:	Water will be sourced from Water Tankers, to be purchased locally for Drinking and Domestic Consumption.
15	DG Set / power	:	60 KVA
16	Crusher	:	Proposed Crusher
17	Nearest Water Body	:	Gara Nadi- 4.76 km in North direction
18	Nearest Habitation	:	Barabotla- 0.78 Km NE direction
19	Nearest Rail Station	:	Ghatsila Railway Station 21.57 km North direction from the mine site.
20	Nearest Airport	:	Birsa Munda Airport, Ranchi 140 km WS direction from the mine site.
21	Nearest Forest	:	Protected Forest more than 250 meter as per division Forest office, Jamshedpur Ref Letter No.- 2913 Dt-02-12-2022.
22	Road & Highways	:	A cart road is well connected to applied lease area from village road 0.23 km south direction this road after 0.67 km connect MDR (Ghatsila-Baharagora road) East direction from the mine site.

CO-ORDINATES

Point	Latitude	Longitude
1	22°23'46.91" N	86°26'12.66" E
2	22°23'47.45" N	86°26'12.00" E
3	22°23'47.28" N	86°26'11.55" E
4	22°23'47.47" N	86°26'11.36" E
5	22°23'47.06" N	86°26'10.68" E
6	22°23'47.24" N	86°26'10.38" E
7	22°23'46.78" N	86°26'09.91" E
8	22°23'47.16" N	86°26'08.71" E
9	22°23'46.84" N	86°26'07.59" E
10	22°23'47.10" N	86°26'06.46" E
11	22°23'46.82" N	86°26'15.91" E
12	22°23'47.02" N	86°26'04.06" E
13	22°23'47.42" N	86°26'03.97" E

14	22°23'47.94" N	86°26'03.11" E
15	22°23'48.31" N	86°26'03.55" E
16	22°23'48.54" N	86°26'03.29" E
17	22°23'48.80" N	86°26'02.27" E
18	22°23'49.20" N	86°26'02.39" E
19	22°23'49.69" N	86°26'03.70" E
20	22°23'50.68" N	86°26'03.55" E
21	22°23'51.87" N	86°26'02.86" E
22	22°23'52.34" N	86°26'03.14" E
23	22°23'52.21" N	86°26'03.44" E
24	22°23'52.69" N	86°26'04.36" E
25	22°23'53.55" N	86°26'05.11" E
26	22°23'53.77" N	86°26'05.81" E
27	22°23'53.55" N	86°26'06.76" E
28	22°23'52.33" N	86°26'08.08" E
29	22°23'50.95" N	86°26'07.69" E
30	22°23'50.77" N	86°26'08.25" E
31	22°23'50.88" N	86°26'08.38" E
32	22°23'50.21" N	86°26'08.89" E
33	22°23'49.81" N	86°26'08.57" E
34	22°23'49.28" N	86°26'09.09" E
35	22°23'49.61" N	86°26'09.35" E
36	22°23'49.60" N	86°26'10.06" E
37	22°23'48.39" N	86°26'10.60" E
38	22°23'48.18" N	86°26'11.91" E
39	22°23'47.60" N	86°26'12.22" E
40	22°23'47.11" N	86°26'12.85" E

LAND DETAILS

The lease area is situated near Paharpur

Sl.	Khata No.	Plot No.
1	251	1601, 1602, 1603, 1604, 1610
2	95	1605, 1608, 1609,
3	179	1611, 881, 882, 883,
4	180	1612, 1613

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Office, East Singhbhum, Jamshedpur vide letter no. 127/Khanan, dated 08.02.2023.
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2	CO Certificate	:	The CO, Dumariya, East Singhbhum vide letter no. 36, dated 02.02.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyana & Register II.
3	DMO Certificate	:	DMO, East Singhbhum, Jamshedpur vide letter no. 164/Khanan, dated 20.02.2023 certified that no other lease area exists within 500 m radius from proposed project site & Total lease area is less than 5 Ha.
4	DFO Wild Life	:	DFO Dalma Elephant Project vide letter no. 190, dated 30.01.2023 certified that the proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary.
5	DFO Territorial	:	DFO, Jamshedpur Forest Division vide letter no. 165, dated 21.01.2023 certified that the distance of reserved / protected forest is more than 250 meter from proposed project area.
6	DSR	:	The District Magistrate -cum-DC, East Singhbhum, Jamshedpur vide letter no. 169/ Khanan, dated 21.02.2023 has informed that this project is part of District Survey Report (DSR) of East Singhbhum district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Dumariya, vide Letter No.- 31, Dated- 10-01-2023 informed that Gram Sabha conducted on 03.12.2022.
8	Mine Plan Approval	:	DMO, Ranchi vide Memo No. 297/M, dated 20.02.2023

WORKING DETAILS

1	Mining Method	:	Opencast Mechanized Mining
2	Quarry Area	:	5 years- 1.96 ha
3	Waste Generation	:	Only in first year-18018 cum
4	Stripping Ratio	:	1:0.02
5	Working Days	:	300 days/year
6	Benches:	:	5m x 5m
7	Elevation of Mine	:	In 138 AMSL
8	Ground Level Elevation	:	In 137 AMSL
9	Ultimate Working Depth	:	In 103 AMSL
10	Water Table	:	In 97 MSL and
11	Topography of Mine	:	Gently sloping area

12	Explosive Requirement	:	43.68 kg Per day
13	Diesel/Fuel requirement	:	HSD - 1432 liters / day

PRODUCTION DETAILS

Year	Production of Stone		Removal of Soil	
	Cum	Tonnes	Cum	Tonnes
1 st Year	106425	287348	18018	27027
2 nd Year	96723	261152	-	-
3 rd Year	80091	216246	-	-
4 th Year	104148	281200	-	-
5 th Year	118305	319424	-	-
Total	505692	1365368	18018	27027

LAND USE

SL	Pattern	Existing Land Use (Ha)	Proposed Current Plan Period (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Land Usage at Conceptual Stage
1	Mining Area	0.00	1.96	1.98	Water Body
2	Office	0.00	0.01	0.01	Office
3	Dump	0.00	0.04	0.04	Plantation
4	Crusher	0.00	0.15	0.15	Crusher
4	Road	0.00	0.02	0.00	-
5	Garland Drain	0.00	0.69	0.69	Plantation
6	Safety Zone				
7	Settling Tank				
8	Unutilized	2.98	0.11	0.11	Plantation
	TOTAL	2.98	2.98	2.98	-

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION	Area/Length	No of Trees
1	Safety Zone	: 0.69 Ha	1725
2	Other Reclaimed Area	: 0.15 Ha	375
3	Haul /Approach Road	: 220 meters	110 Tree 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 18018 cum during the 1st year plan period. O.B.Dump area is 0.04 ha. The O.B. shall be used for backfilling in the end of life of mine of the mining operation.

Water Pollution Control Measures:

- Mining operation will be restricted to the depth of 35m from surface level.
- Quality of dug well will be monitored, in order to ensure the quality of water is not affected.

Air and Noise Pollution Control Measures:

- Dust suppression measures like spraying / sprinkling of water to keep the surface wet.
- Overloading of the truck / tractor trolleys 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 tractor-trolleys will be developed on village roads.
2. Tractors-trolleys 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 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.



8	CSR / CER Budget	:	Rs. 1.75 Lakhs
9	New or Expansion	:	New
10	Mineable Reserves	:	Cu.M.: 168147 Cu. M. Tonnes: 453997
11	Mine Life	:	5 years only
12	Manpower	:	40 Person
13	Water Requirement	:	9.015 KLD (Drinking: 0.60 KLD, Dust Suppression: 2.4 KLD, Plantation: 6.015 KLD)
14	Water Source	:	Water will be sourced from Water Tankers, to be purchased locally for Drinking and Domestic Consumption.
15	DG Set / power	:	20 KVA
16	Crusher	:	Proposed Crusher
17	Nearest Water Body	:	Subarnerekha River situated in 2.80 km East direction.
18	Nearest Habitation	:	Pindrashol- 0.95 Km NW direction
19	Nearest Rail Station	:	Dhalbhumgarh Station at 23.76 km North direction.
20	Nearest Airport	:	Birsa Munda Airport, Ranchi 180 km WN direction from the mine site.
21	Nearest Forest	:	Protected Forest more than 250 meter as per division Forest office, Jamshedpur Ref Letter No.- 155, Dt-20-01-2023.
22	Road & Highways	:	A cart road is well connected to applied lease area from Manda village road 0.46 km south direction this road after 1.46 km connect MDR (Ghatsila-Baharagora road) South direction from the mine site.

CO-ORDINATES

Point	Latitude	Longitude
1	22°18'00.40" N	86°37'31.94" E
2	22°18'01.00" N	86°37'31.24" E
3	22°18'01.88" N	86°37'30.88" E
4	22°18'01.70" N	86°37'30.02" E
5	22°18'02.36" N	86°37'29.54" E
6	22°18'03.46" N	86°37'30.64" E
7	22°18'03.33" N	86°37'31.37" E
8	22°18'03.13" N	86°37'32.02" E
9	22°18'03.35" N	86°37'31.90" E
10	22°18'03.88" N	86°37'31.43" E
11	22°18'04.14" N	86°37'31.56" E
12	22°18'04.34" N	86°37'31.46" E
13	22°18'05.77" N	86°37'32.13" E
14	22°18'06.53" N	86°37'32.50" E
15	22°18'08.33" N	86°37'33.22" E
16	22°18'08.24" N	86°37'33.62" E
17	22°18'07.91" N	86°37'33.74" E

18	22°18'07.48" N	86°37'34.75" E
19	22°18'07.38" N	86°37'35.31" E
20	22°18'07.10" N	86°37'35.55" E
21	22°18'07.00" N	86°37'35.38" E
22	22°18'07.23" N	86°37'34.20" E
23	22°18'06.64" N	86°37'34.25" E
24	22°18'06.19" N	86°37'34.96" E
25	22°18'05.44" N	86°37'34.77" E
26	22°18'04.86" N	86°37'35.61" E
27	22°18'04.58" N	86°37'36.12" E
28	22°18'03.89" N	86°37'36.73" E
29	22°18'02.88" N	86°37'33.95" E
30	22°18'03.58" N	86°37'33.64" E
31	22°18'03.37" N	86°37'33.53" E
32	22°18'03.39" N	86°37'33.26" E
33	22°18'03.09" N	86°37'32.98" E
34	22°18'02.80" N	86°37'32.89" E
35	22°18'02.78" N	86°37'32.68" E
36	22°18'02.52" N	86°37'32.72" E
37	22°18'02.18" N	86°37'33.37" E
38	22°18'01.96" N	86°37'33.40" E
39	22°18'01.83" N	86°37'33.21" E
40	22°18'01.63" N	86°37'33.29" E
41	22°18'00.69" N	86°37'32.50" E

LAND DETAILS

The lease area is situated near Pindrashol

Sl.	Khata No.	Plot No.
1	2	559, 560, 561, 557, 543
2	25	546, 556, 558

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (Loi) has been issued by District Mining Office, East Singhbhum, Jamshedpur vide letter no. 138/Khanan, dated 13.02.2023.
2	CO Certificate	:	The CO, Gurabanda, vide letter no. 993, dated 15.12.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyan & Register II.

Handwritten signatures and initials are present at the bottom of the page, including a large signature on the left, a signature in the center, and several other initials and marks on the right.

3	DMO Certificate	:	DMO, East Singhbhum, Jamshedpur vide letter no. 172/Khanan, dated 22.02.2023 certified that no other lease area exists within 500 m radius from proposed project site & Total lease area is less than 5 Ha.
4	DFO Wild Life	:	DFO Dalma Elephant Project vide letter no. 157 , dated 21.01.2023 certified that the proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary.
5	DFO Territorial	:	DFO, Jamshedpur, vide letter no. 155, dated 20.01.2023 certified that the distance of reserved / protect forest is more than 250 meter from proposed project site.
6	DSR	:	The District Magistrate cum--DC , East Singhbhum, Jamshedpur vide letter no. 169/ Khanan, dated 21.02.2023 has informed that this project is part of District Survey Report (DSR) of East Singhbhum district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Gurabanda vide letter no. 25, dated 05.01.2023 infored that Gram Sabha conducted on Dated- 03.01.2023.
8	Mine Plan Approval	:	DMO, Ranchi vide memo No. 299/M, dated 21.02.2023

WORKING DETAILS

1	Mining Method	:	Opencast Mechanized Mining
2	Quarry Area	:	5 years– 1.04 ha Life of Mine – 5 year only
3	Waste Generation	:	Only in 1 st & 2nd year–12782 cum Life of Mine –Nil
4	Stripping Ratio	:	1:0.02
5	Working Days	:	300 days/year
6	Benches:	:	5m x 5m
7	Elevation of Mine	:	In 88-84 AMSL
8	Ground Level Elevation	:	In 84 AMSL
9	Ultimate Working Depth	:	In 61 AMSL

10	Water Table	:	In 52 MSL and
11	Topography of Mine	:	Gently sloping area
12	Explosive Requirement	:	12.48 kg Per day
13	Diesel/Fuel requirement	:	HSD - 972 liters / day

PRODUCTION DETAILS

Year	Production of Stone		Removal of Soil	
	Cum	Tonnes	Cum	Tonnes
1 st Year	37368	100894	4500	6750
2 nd Year	40456	109231	8282	12423
3 rd Year	32328	87286	-	-
4 th Year	28011	75630	-	-
5 th Year	17332	46796	-	-
Total	155495	419837	12782	19173

LAND USE

SL	Pattern	Existing Land Use (Ha)	Proposed Current Plan Period (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Land Usage at Conceptual Stage
1	Mining Area	0.00	1.00	1.04	Water Body
2	Office	0.00	0.02	0.02	Office
3	Dump	0.00	0.00	0.00	-
4	Crusher	0.00	0.15	0.15	Crusher
4	Road	0.00	0.04	0.00	-
5	Garland Drain	0.00	0.67	0.67	Plantation
6	Safety Zone				
7	Settling Tank				
8	Unutilized	1.98	0.10	0.10	Plantation
	TOTAL	1.98	1.98	1.98	-

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.67 Ha	1675
2	Other Reclaimed Area	:	0.10 Ha	250
3	Haul /Approach Road	:	120 meters	60 Tree 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 12782 cum during the 1st and 2nd year plan period. O.B. will be used to haul road dressing and quarry fencing.

Water Pollution Control Measures:

- Mining operation will be restricted to the depth of 25m from surface level.
- Quality of dug well will be monitored, in order to ensure the quality of water is not affected.

Air and Noise Pollution Control Measures:

- Dust suppression measures like spraying / sprinkling of water to keep the surface wet.
- Overloading of the truck / tractor trolleys 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 tractor-trolleys will be developed on village roads.
2. Tractors-trolleys 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.

256

- 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 Pindrashol Stone Deposit of Sri Gajendra Kumar Singh at Village : Pindrashol, Thana : Gurabanda, Thana no. : 1017, Distt. : East Singhbhum, Jharkhand. (1.98 ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IV.

3. Ghaghra Stone Deposit of M/s Eklavya Kumar (Partners : Sri Eklavya Kumar & Sri Dinanath Besra), Village : Ghaghra, Thana : Deori, Distt. : Giridih, Jharkhand (2.24 Ha).

(Proposal No.SIA/JH/MIN/416078 /2023).

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

This is a new project which has been taken for appraisal on 21.02.2023. During appraisal some shortcomings were observed in the submitted approved mine plan and thus it was decided that the appraisal of the project will be taken up after submission of revised and approved mine plan. The PAs have submitted the required approved mine plan therefore, this project was taken up for consideration on 24.02.2023.

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 97667.0 cum/annum or 263700.0 TPA

Project and Location Details :

Sl	Parameter	Details	
1	Project Name	: Ghaghra Stone Deposit	
2	Lessee:	: M/S Eklavya Kumar Partner - 1. Sri Eklavya Kumar (Add. Village - Goni Pahari Pathra, Thana + District - Nawada, State - Bihar) 2. Sri Dinanath Besra (Add. Village - Khoto, PO - Chatro, Thana - Bhelwaghati, District- Giridih, State - Jharkhand)	
3	Lease Address	: Village – Ghaghra, Thana- Deori, District – Giridih, State- Jharkhand	
4	Lease Area	: 2.24 ha	Acres- 5.53 Acres
5	Type of Land	: Non Forest – Raiyati Land	
6	Project Cost	: Rs. 60 Lakhs	
7	EMP Budget	: Capital: 5.25 Lakhs	Recurring: 3.27 Lakh / year
8	New or Expansion	: New	
9	Mineable Reserves	: Cu.m.: 488800.0 cum	Tonnes: 1319760.0 tons
10	Mine Life	: 5.0 years	
11	Man power	: 20	
12	Water Requirement	: 10.50 KLD(Drinking: 0.20 KLD, Dust Suppression: 5.935 KLD, Plantation: 4.0 KLD)	
13	Water Source	: From Nearby villages by tankers	
14	DG Set / power	: 60 KVA	
15	Crusher	: There is No-Crusher.	
16	Nearest Water Body	: Perna Nadi, Approx. 1.0 km towards North direction of mine site. Gordhua Nala, Approx. 3.25 km towards NW direction of mine site Sundri Nala, Approx. 4.80 km towards NE direction of mine site.	
17	Nearest Habitation	: Ghaghra, 0.80 km	
18	Nearest Rail Station	: Jamua Railway station, approx. 20.10 km towards SW direction.	
19	Nearest Air Port	: Giridih Airport, approx. 34.60 km towards South direction.	
20	Nearest Forest	: Protected Forest near Belakola, Approx 3.80 km towards SW direction of mine site.	
21	Road & Highways	: NH 333, Approx. 2.20 km. in East direction	

CO-ORDINATES

1	Latitude	From 24°30'00.85" N	To 24°30'06.23" N
2	Longitude	From 86°16'38.61" E	To 86°16'48.45" E

LAND DETAILS :

Khata No.	Plot No.
04	521, 522, 523, 524, 525, 544 & 547

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Giridih vide letter no. 1216/M, dated 20.12.2022.
2	CO	:	The CO, Devri, Giridih vide letter no. : 452, dated 24.11.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in Khatiyon.
3	DMO	:	DMO, Giridih vide memo no. 23/M, dated 06.01.2023 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. : 2461, dated 05.12.2022 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Giridih East Forest Division vide letter no. : 3355, dated 22.09.2022 certified that the distance of Reserved / Protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC- cum – District Magistrate, Giridih vide letter no. 87/M, dated 27.01.2023 has informed that this project is part of District Survey Report (DSR) of Giridih district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	Gram Sabha conducted on 25.11.2022.
8	Mine Plan Approval	:	District Mining Office, Koderma vide letter no. 393, dated 23.02.2023.

Working Details

1	Mining Method	:	Opencast semi mechanized method
2	Quarry Area	:	5 years– 1.592 ha Life of Mine – 5.0 years
3	Waste Generation	:	5 years– 5081.0 cum or 13718.70 tons
4	Stripping Ratio	:	1: 0.01
5	Working Days	:	300

6	Benches: size & No	:	6m x 6m
7	Elevation of Mine	:	334 AMSL to 324 AMSL
8	Ground Level Elevation	:	324 AMSL
9	Ultimate Working Depth	:	304 AMSL
10	Water Table	:	290 AMSL (15 mbgl)
11	Topography of Mine	:	Area represents an undulating topography
12	Explosive Requirement	:	8kg/day
13	Diesel/Fuel requirement	:	80 litre/day

Production Details

Year	Production of stone (Cum)	Production of stone (Tonnes)	Waste Generation (CuM)	Bench RL in Meters
1 st	90100.00	243270.00	1751.00	322mRL - 327mRL
2 nd	97600.00	263520.00	3330.00	316mRL - 322mRL
3 rd	97667.00	263700.00	-	316mRL - 322mRL
4 th	97667.00	263700.00	-	310mRL - 316mRL
5 th	97667.00	263700.00	-	310mRL - 316mRL
Total	480701.00	1297890.00	5081.00	

Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Quarry	--	1.592	1.592
Road	0.015	0.006	0.006
Excluded Area	0.055	0.055	0.055
Safety Zone Plantation (Greenbelt)	--	0.587	0.587
Total	0.070	2.24	2.24
Balance	2.170	--	--
Lease Hold Area	2.24	2.24	2.24

ENVIRONMENT MANAGEMENT

Green Belt Development

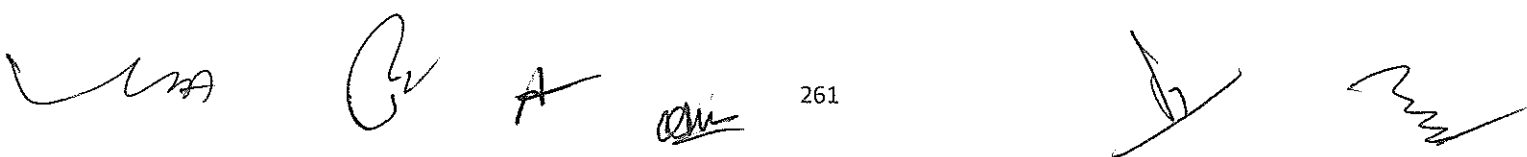
S. No.	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.587 ha	1500
2	Haul /Approach Road	:	0.50 km	500

Year	Area for Greenbelt in Hectare/No. of Plants	Plantation along both sides of Approach road	Name of the Species to be planted
1 st Year	Excavation for Plantation		Jackfruits, Babul, Arjuna, Gulmohar, Neem, Pipal, Mango, etc.
2 nd year	0.587/1500	500	
3 rd year			
4 th year			
5 th Year			
Total	0.587/1500	500	
Total	2000		

- Afforestation will be done along the barrier zone. Plantation will also be done along both sides of approach road. 500 no. of trees will also be planted in buffer zone consulting local authorities. Therefore, total number of Plantation will be 1500 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

- Waste Generation will be 5081.0 cum or 13718.70 tons during the plan period which will be used for making and maintenance of haul road and village 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 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:

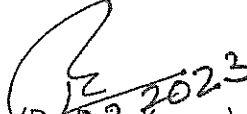
- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are 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.

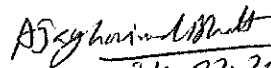



- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. 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 Ghaghra Stone Deposit of M/s Eklavya Kumar (Partners : Sri Eklavya Kumar & Sri Dinanath Besra), Village : Ghaghra, Thana : Deori, Distt. : Giridih, Jharkhand (2.24 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IV.


The meeting concluded with thanks to all present.



24/02/2023
(Dr. Raju Kumar)
24. Member


24.02.2023
(Dr. Ajay Govind Bhatt)
Member


24/02/2023
(Niranjan Lal Agarwalla)
Member


24/2/23
(Dr. Kirti Avishek)
Member


24/02/2023
(Srikant Verma)
Secretary


24/02/2023
(Ashok Kumar Singh)
Chairman

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.

- 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

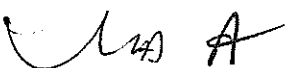
- i. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
- ii. A management plan shall be drawn up and implemented to contain 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,

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.

 A









- 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.

- 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 25th 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.

- 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.

- 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.
- xvi. The Prescribed EC is valid as per Notification no. S.O. 1807(E) dated 12.04.2022 of MoEF&CC, Govt. of India.



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.

- 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.

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.

- 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.

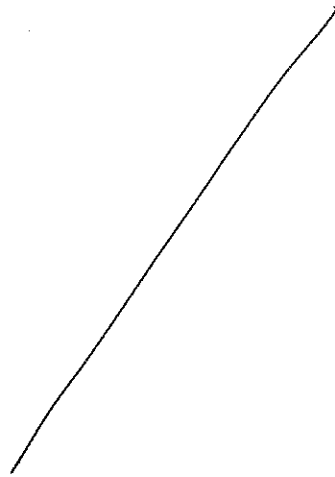
B. SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR METALLURGICAL INDUSTRIES (FERROUS & NON FERROUS)

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 is valid as per O.M. F. No. IA3-22/10/2022-IA.III[E177258], dated 08.06.2022. of MoEF&CC, Govt. of India.



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

- i. Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
- ii. A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- iii. All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
- iv. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
- v. Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
- vi. Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
- vii. It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The 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, may also be detailed in the EIA Report.
- viii. Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
- ix. The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
- x. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and

other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.

- x. Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
- xii. A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
- xiii. Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- xiv. Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
- xv. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- xvi. A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
- xvii. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
- xviii. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- xix. Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also

be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.

- xx. Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
- xxi. R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
- xxii. One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.
- xxiii. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
- xxiv. The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
- xxv. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.

- xxvi. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
- xxvii. Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
- xxviii. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
- xxix. Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
- xxx. Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
- xxxi. A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
- xxxii. Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
- xxxiii. Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- xxxiv. Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- xxxv. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and

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periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.

- xxxvi. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- xxxvii. Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
- xxxviii. Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
- xxxix. Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- xl. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- xli. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- xlii. A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- xliii. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
- xliv. Besides the above, the below mentioned general points are also to be followed :-
 - a) Executive Summary of the EIA/EMP Report
 - b) All documents to be properly referenced with index and continuous page numbering.
 - c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF & CC / NABL accredited laboratories. All the original analysis / testing reports should be available during appraisal of the Project.
 - e) Where the documents provided are in a language other than English, an English translation should be provided.
 - f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.

- g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF& CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF & CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
- i) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
- j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.
- xlv. 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.
- xlvi. The Prescribed ToRs is valid as per O.M. F. No. IA3-22/10/2022-IA.III[E177258], dated 08.06.2022 of MoEF&CC, Govt. of India.

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 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.
- 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.

- 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). 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

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 ail 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 wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- iii. Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- iv. The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-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,

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.

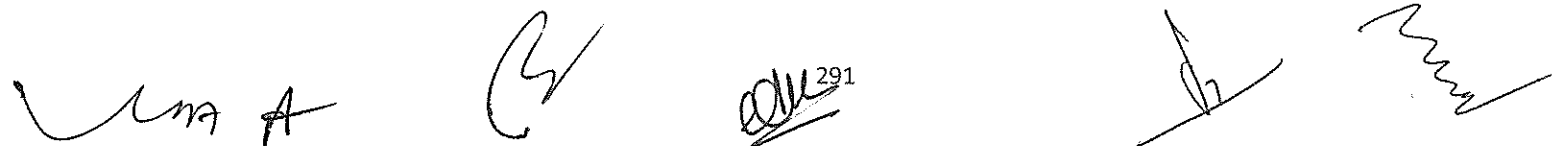
VI. Land reclamation

- 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

- 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

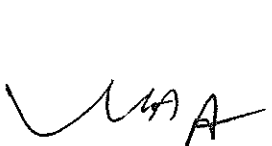
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roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment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



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.

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 shall not increase production rate and alter lease area during the validity of Environmental Clearance.
- x. Any appeal against this Environmental Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.



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

4. Site Details

- i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
- ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
- iii. Details w.r.t. option analysis for selection of site
- iv. Co-ordinates (lat-long) of all four corners of the site.
- v. Google map-Earth downloaded of the project site.
- vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- viii. 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.

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.
- 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.

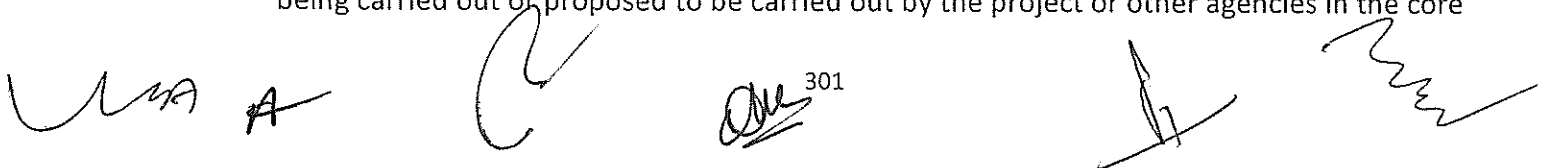


B. Specific Terms of Reference For EIA Studies For Distilleries :

1. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
2. Number of working days of the distillery unit.
3. Details of raw materials such as molasses/grains, their source with availability.
4. Details of the use of steam from the boiler.
5. Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
6. Plan to reduce spent wash generation within 6-8 KL/KL of alcohol produced.
7. Proposed effluent treatment system for molasses/grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero effluent discharge (ZLD).
8. Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
9. Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers to be proposed around spent wash holding tank.
10. Action plan to control ground water pollution.
11. Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12. Details of bio-composting yard (if applicable).
13. Action plan to control odour pollution.
14. Arrangements for installation of continuous online monitoring system (24x7 monitoring device).

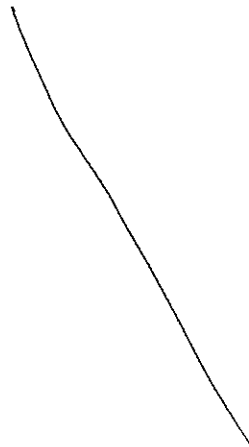
C. Other condition : (Specific Conditions)

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

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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-à-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 is valid as per O.M. F. No. IA3-22/10/2022-IA.III[E177258], dated 08.06.2022 of MoEF&CC, Govt. of India.



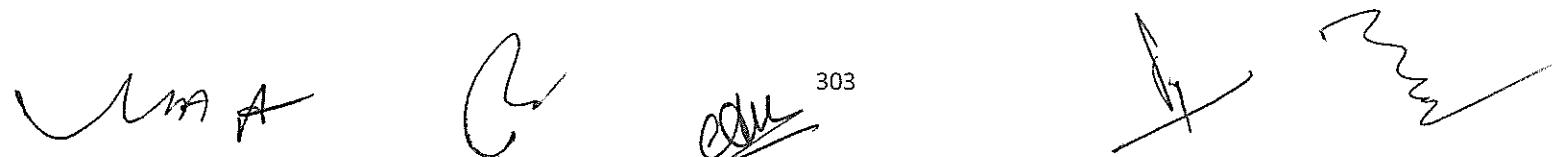
Standard EC condition

I. Statutory compliance

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of schedule-I species in the study area)
- 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 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.
- vi. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- vii. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

II. Air quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. no. 612 (E) dated 25 August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.
- iii. The project proponent shall install system carryout to Ambient Air Quality monitoring for common / criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions. (case to case basis small plants: Manual; Large plants: Continuous)
- iv. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality / fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six- monthly monitoring report.
- v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- vi. The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
- vii. Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.
- viii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- ix. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash.
- x. Provide wind shelter fence and chemical spraying on the raw material stock piles; and
- xi. Have separate truck parking area and monitor vehicular emissions at regular interval.
- xii. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport
- xiii. Ventilation system shall be designed for adequate air changes as per ACGIH Document for all tunnels, motor houses, cement bagging plants

III. Water quality monitoring and preservation

- i. The project proponent shall install effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25th

August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories. (case to case basis small plants: Manual; Large plants: Continuous)

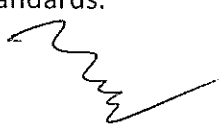
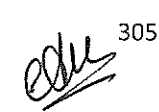
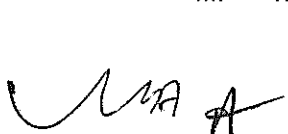
- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- iv. Adhere to 'Zero Liquid Discharge'.
- v. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- vi. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off
- vii. The project proponent shall practice rainwater harvesting to maximum possible extent.
- viii. Water meters shall be provided at the inlet to all unit processes in the cement plant.
- ix. The project proponent shall make efforts to minimise water consumption in the cement plant complex by segregation of used water, practicing cascade use and by recycling treated water.

IV. Noise monitoring and prevention

- i. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time

V. Energy Conservations measures

- i. Provide solar power generation on rooftops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.
- ii. Provide the project proponent for LED lights in their offices and residential areas.
- iii. Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS Standards.



vi. **Waste management**

- i. The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & other waste (Management & Trans boundary Movement) Rules, 2016.
- ii. Kitchen waste shall be composted or converted to biogas for further use. *(to be decided on case to case basis depending on type and size of plant)*

vii. **Green Belt**

- i. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
- ii. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the program for reduction of the same including carbon sequestration including plantation.

viii. **Public hearing and Human health issues**

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The PP shall provide Personal Protection Equipment (PPE) as per the norms of factory Act.
- iii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile 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.
- iv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

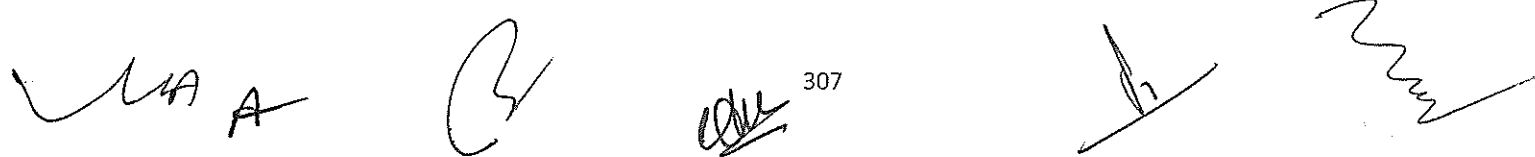
ix. **Corporate Environment Responsibility**

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements / deviation / violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and/or shareholders/stake holders. The copy of the board resolution in this regard shall be submitted to the 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.
- v. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- vi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants shall be implemented.

X. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM_{10} , SO_2 , NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. 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.
- vi. 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

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Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

- vii. 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.
 - a. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
 - b. 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.
- viii. 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).
- ix. 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.
- x. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xi. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xii. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
- xiii. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xiv. 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
- xv. The Prescribed EC is valid as per Notification no. S.O. 1807(E) dated 12.04.2022 of MoEF&CC, Govt. of India.

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

1. The EIA Report shall be prepared MTPA rated capacity in an ML / project area of ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.
2. An EIA-EMP Report would be prepared for 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 MTPA of coal production based on approved project/Mining Plan for 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.

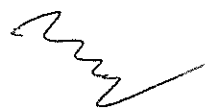
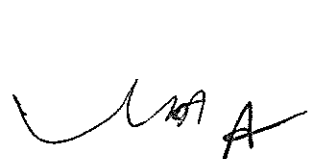
Land use details for opencast project should be given as per the following table :

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

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.

45. The Prescribed ToRs is valid as per O.M. F. No. IA3-22/10/2022-IA.III[E177258], dated 08.06.2022 of MoEF&CC, Govt. of India.

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

A. Standard Conditions :

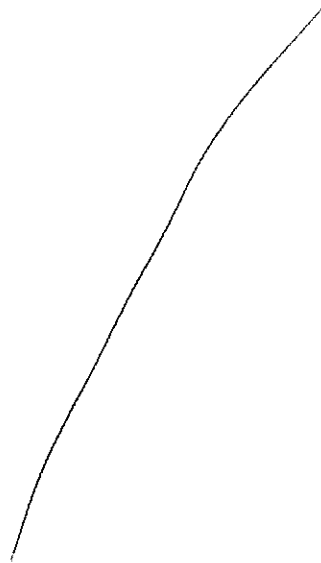
1. Examine base line environmental quality along with projected incremental load due to the project.
2. Environmental data to be considered in relation to the project development would be (a) land, (b) ground water,(c) surface water, (d) air, (e) bio-diversity, (f) noise and vibrations,(g) socio economic 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.

17. Details of litigation pending or any notice received against the project, if any, with direction or 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 towards 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 :

11. The State Govt. / SPCB to take action against the project proponent under the provisions of section 19 of the Environment (Protection) Act, 1986.
12. 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.
13. 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.
14. 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.
15. 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".
16. 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.
17. Details of all construction input should be furnished for assessment of Ecological damage/Environmental damage.
18. 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.

19. 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.
20. The Prescribed ToRs is valid as per O.M. F. No. IA3-22/10/2022-IA.III[E177258], dated 08.06.2022 of MoEF&CC, Govt. of India.



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EDM

A. SPECIFIC CONDITION:

- i. All the recommendations, mitigation measures, environmental protection measures and safeguards proposed in the EIA report of the project and commitments made during presentation before SEAC and proposed in the EIA report shall be strictly adhered to in letter and spirit.
- ii. The unit shall strictly comply with the CPCB guidelines for setting up the Common Bio-Medical Waste Treatment Facility. [CBWTF]
- iii. Proponent shall strictly comply the design criteria for incinerator, autoclave and shredder as per the CPCB guidelines.
- iv. The unit shall strictly setup the dry technology system.
- v. The unit shall strictly ensure mercury waste management at health care facility as per the CPCB guidelines.
- vi. The unit shall establish Standard Operating Procedure for waste collection, handling, transportation, treatment and disposal as per Biomedical Waste Management Rules, 2016.
- vii. Zero Liquid Discharge (ZLD) status shall be maintained all the time.
- viii. There shall be no drainage connections from the premises.

B. CONSTRUCTION PHASE:

- i. Water demand during construction shall be reduced by use of curing agents. super plasticizers and other best construction practices.
- ii. Project-proponent shall ensure that surrounding environment shall not be affected due to construction activity.
- iii. Construction materials shall be covered during transportation and regular water sprinkling shall be done in vulnerable areas for controlling fugitive emission.
- iv. All required sanitary and hygienic measures shall be provided before starting the construction activities and to be maintained throughout the construction phase.
- v. First Aid Box shall be made readily available in adequate quantity at all the times.
- vi. The project proponent shall strictly comply with the Building and other Construction Workers (Regulation of Employment & Conditions of Service) Act 1996 and Jharkhand rules made there under and their subsequent amendments. Local byelaws of concern authority shall be complied in letter and spirit.
- vii. Ambient noise levels shall conform to residential standards both during day and night. Incremental pollution load on the ambient air and noise quality shall be closely monitored during construction phase.
- viii. Use of Diesel Generator (DG) sets during construction phase shall be strictly equipped with acoustic enclosure and shall conform to the EPA Rules for air and noise emission standards.
- ix. Safe disposal of sewage and municipal solid wastes generated during the construction phase shall be ensured.
- x. All topsoil excavated during construction activity shall be used in horticultural/landscape development within the project site.

- xi. Excavated earth to be generated during the construction phase shall be utilized within the premises to the maximum extent possible and balance quantity of excavated earth shall be disposed of with the approval of the competent authority after taking the necessary precautions for general safety and health aspects. Disposal of the excavated earth during construction phase shall not create adverse effect on neighboring communities.
- xii. Project proponent shall prefer use of eco-friendly building materials including fly ash bricks, fly ash paver blocks, Ready Mix Concrete (RMC) and lead free paints in the project.
- xiii. Fly ash shall be used in construction wherever applicable as per provisions of Fly Ash Notification under the E.P. Act, 1986 and its subsequent amendments from time to time. Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to all surroundings.

C. OPERATION PHASE:

- i. Consent to Operate shall be obtained from JSPCB under Air (Prevention & Control of Pollution) Act, 1981 and Water (Prevention & Control of Pollution) Act, 1974 before operation, failing which the Environmental Clearance herein shall be deemed to be withdrawn.
- ii. Authorization from Jharkhand State Pollution Control Board shall be obtained as applicable under Bio-Medical Waste Management Rules, 2016.
- iii. The Bio-Medical wastes shall be managed in accordance with the Bio-Medical Waste Management Rules 2016.
- iv. Incinerated ash, used oil, sludge salt, treated biomedical waste and ETP Sludge should be disposed in accordance with BMW Rules, 2016.
- v. The proponent shall comply with the Environmental standards notified by Ministry of Environment, Forest & Climate Change for incinerators along with the technology/guidelines.
- vi. Guidelines published the Central Pollution Control Board from time to time for Common Bio Medical Waste Treatment published shall be referred for implementation.
- vii. There should not be any spillage from the transportation Vehicles.
- viii. The project proponent will set up separate Environmental Management Cell for effective implementation of stipulated environmental safeguards under the supervision of Senior Executive.
- ix. All the recommendations of EMP shall be strictly complied.
- x. The environmental safeguards containing the EIA report shall be implemented in letter & spirit.
- xi. Necessary provision shall be made for firefighting facilities within the complex.
- xii. Treated flue gas emissions discharged through stack to atmosphere shall always be less than specific emission' standards.
- xiii. Project Proponent shall ensure regular operation and maintenance of the ETP and printed logbook shall be maintained

- xiv. All the pipelines carrying water/ waste water should be distinguished using colour coding on raw water pipes and reuse lines of treated water.
- xv. Utilization of Diesel power generating sets is subject to power failure condition only. The DG sets proposed as a source of power back up during operation phase should be of enclosed type, low sulphur diesel run and conform to rules made under the Environment (Protection) Act, 1986. The DG sets should be subjected to periodic noise and stack monitoring.
- xvi. Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.
- xvii. Energy Conservation measures such as LEDs light for common lighting of areas, signage etc should be adopted.
- xviii. The unit shall develop 33% plot area as a green belt within premises as per the CPCB guidelines.

D. WATER:

- i. Total water requirement for the project shall not exceed 20 KL/day and wastewater generation would be around 15 KLD, the wastewater generated will be treated in ETP.
- ii. State Ground Water Board / Central Ground Water Board permission should be taken before water uses as per project requirement.
- iii. Waste water generation from floor washing, vehicle washing and Autoclaving (4 L/day) shall be treated in proposed ETP. (Cap. 15 KL/Day).
- iv. Entire quantity of treated waste water shall be reused for industrial purpose within the premises after conforming the JSPCB norms.
- v. The unit shall provide adequate effluent treatment plant (ETP) comprises of Primary, tertiary treatment plants and it shall be operated regularly and efficiently so as to ensure reuse for quenching process.
- vi. Separate energy meter shall be provided at ETP. A proper operation logbook of the ETP containing records of quantities and qualities of treated effluent.
- vii. The domestic wastewater generation shall not exceed 2.4 KL/day for proposed project and it shall be disposed of into soak pit system.
- viii. The Zero wastewater discharge condition to be achieved with utilizing treated effluent for lime slurry preparation for spraying in reactor for quenching process as well as floor and vehicle washing.
- ix. The project proponent shall provide electromagnetic flow meter at the inlet & outlet of the water supply, Inlet & outlet of the ETP and shall maintain a record of readings of each such meter on daily basis.
- x. The quantity of fresh water usage and water recycling shall be monitored & maintained so that water balance as projected by the project proponent. The record shall be submitted to the JSPCB, SEIAA & Regional Office, MoEF & CC along with six monthly monitoring reports.



E. AIR:

- i. Regular monitoring of ground level concentration of PM10, PM2.5, NOx and VOC shall be carried out at the site and downwind direction and its records shall be maintained. Ambient air quality levels shall not exceed the standards stipulated by the CPCB. If at any stage these levels are found to exceed the prescribed limits, necessary additional control measures shall be taken immediately.
- ii. Proponent shall strictly follow the odour control measures as suggested in environmental management plan.
- iii. Proponent shall strictly follow the Environmental Monitoring Program [EMP] for Ambient Air Quality Monitoring (AAQM).
- iv. Treated flue gas emissions discharged through stack to atmosphere shall always be less than CPCB stipulated emission standards.
- v. DG sets should be maintained as per the norms prescribed by Govt. of Jharkhand.
- vi. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution and shall conform to the EPA Rules for air and noise emission standards.
- vii. A green belt shall be developed all around the plant boundary and also along the roads to mitigate fugitive & transport dust emission.

F. SOLID/HAZARDOUS WASTE:

- i. The Company shall strictly comply with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, as may be amended from time to time. Authorization of the JSPCB shall be obtained for collection / treatment / storage / disposal of hazardous wastes.
- ii. Hazardous wastes shall be dried, packed and stored in separate designated hazardous waste storage facility with pucca bottom and leachate collection facility, before its disposal.
- iii. Incinerator Ash, ETP sludge & salt sludge (From reactor) shall be disposed off at the nearby common TSDF.
- iv. Treated Biomedical plastic waste shall be sold out to JSPCB authorized recycler only.
- v. Used Oil shall be either reused for lubrication in plant machineries or sold out to registered recyclers,
- vi. Discarded container / bags shall be either reused or sold only to the authorized recyclers.
- vii. Treated glass waste shall be sold out to JSPCB authorized recycler only.
- viii. Sharp waste shall be disposed through in-house designated concrete sharp pit and disposal to sanitary landfill.
- ix. The unit shall obtain necessary permission from the nearby TSDF site.
- x. Trucks / Tankers used for transportation of hazardous waste shall be in accordance with the provisions under the Motor Vehicle Act, 1988, and rules made there under.
- xi. The design of the Trucks/tankers shall be such that there is no spillage during transportation.

- xii. All possible efforts shall be made for Co-Processing of the Hazardous waste prior to disposal into TSDF/CHWIF.
- xiii. Management of fly ash (If any) shall be as per the Fly ash Notification, 2009 & its amendment time to time and it shall be ensured that there is 100% utilization of fly ash to be generated from the unit.

G. SAFETY:

- i. The occupier/manager shall strictly comply the provisions under the Factories Act 1948 and the Factories Rules of the State of Jharkhand.
- ii. The project authorities shall strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules (MSIHC) 1989, as amended time to time and the Public Liability Insurance Act for handling of hazardous chemicals etc. Necessary approvals from the Chief Controller of Explosives and concerned Govt. Authorities shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans have to be prepared and implemented.
- iii. Main entry and exit shall be separate and clearly marked in the facility.
- iv. Sufficient peripheral open passage shall be kept in the margin area for free movement of fire tender/ emergency vehicle around the premises.
- v. Sufficient number of fire extinguishers shall be provided near the plant and storage area.
- vi. All necessary precautionary measures shall be taken to avoid any kind of accident during loading, unloading and transportation of biomedical waste.
- vii. The project management shall ensure to comply with all the environment protection measures, risk mitigation measures and safeguards mentioned in the Risk Assessment report.
- viii. Only flame proof electrical fittings shall be provided in the plant premises.
- ix. All the waste storage room shall be marked with colour coding as per the CPCB guidelines time to time.
- x. Proponent shall tie up with nearby health care facility for any emergency cases.
- xi. Personal Protective Equipments (PPEs) shall be provided to workers and its usage shall be ensured and supervised.
- xii. First Aid Box in the unit shall be made readily available in adequate quantity.
- xiii. Training shall be imparted to all the workers on safety and health aspects of biomedical waste handling.
- xiv. Occupational health surveillance of the workers shall be done and its records shall be maintained. Pre-employment and periodical medical examination for all the workers shall be undertaken as per the Factories Act & Rules.
- xv. Transportation of biomedical waste shall be done as per the provisions of the Motor Vehicle Act & Rules.
- xvi. The company shall implement all preventive and mitigation measures suggested in the Risk Assessment Report.

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H. NOISE:

- i. The overall noise level in and around the plant area shall be kept well within the standards by providing noise control measures including engineering controls like acoustic insulation hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise level shall conform to the standards prescribed under The Environment (Protection) Act, 1986 & Rules.

I. GREEN BELT AND OTHER PLANTATION:

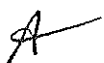
- i. The unit shall develop green belt within premises as per the CPCB guidelines. However, if the adequate land is not available within the premises, the unit shall take up adequate plantation on road sides and suitable open areas in JIDC estate or any other open areas in consultation with the JIDC / JSPCB and submit an action plan of plantation for next three years to the JSPCB.
- ii. Drip irrigation / low-volume, low-angle sprinkler system shall be used for the green belt development within the premises.

J. OTHER CONDITIONS:

- i. Rain water recharging of surface as well as rooftop runoff shall be undertaken as per the guidelines / parameter of the State Ground Water Board / Central Ground Water Board and the same water shall be used for the various activities of the project to conserve fresh water as well as to recharge ground water. Before recharging the surface run off, pre-treatment must be done to remove suspended matter.
- ii. The unit shall join and participate financially and technically for any common environmental facility / infrastructure as and when the same is taken up either by the Industrial Association or JIDC or JSPCB or any such authority created for this purpose by the Govt. / JIDC.
- iii. The area earmarked as green area shall be used only for plantation and shall not be altered for any other purpose.
- iv. All the commitments / undertakings given to the SEAC during the appraisal process for the purpose of environmental protection and management shall be strictly adhered to .
- v. The project proponent shall also comply with any additional condition that may be imposed by the SEAC or the SEIM or any other competent authority for the purpose for the environmental protection and management.
- vi. In the event of failure of any pollution control system adopted by the unit, the unit shall be safely closed down and shall not be restarted until the desired efficiency of the control equipment has been achieved.
- vii. The project authorities must strictly adhere to the stipulations made by the Jharkhand Pollution Control Board (JSPCB), State Government and any statutory authority.

- viii. During biomedical waste unloading there shall be no spillages and garland drain shall be constructed to avoid mixing of accidental spillages with domestic waste water or storm water.
- ix. Pucca flooring impervious layer shall be provided in the work areas, biomedical waste storage areas and chemical handling areas to minimize soil contamination.
- x. No further expansion or modifications in the plant likely to cause environmental impacts shall be carried out without obtaining prior Environment Clearance from the concerned authority.
- xi. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous & other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.
- xii. The project proponent shall comply all the conditions mentioned in "The Companies (Corporate Social Responsibility Policy) Rules, 2014" and its amendments from time to time in a letter and spirit.
- xiii. The project management shall ensure that unit complies with all the environment protection measures, risk mitigation measures and safeguards recommended in the EMP report and Risk Assessment study report as well as proposed by project proponent.
- xiv. The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as well as JSPCB along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.
- xv. The applicant shall inform the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the JSPCB and may also be seen at the Website of SEIAA/SEAC/JSPCB. This shall be advertised within seven days from the date of the clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in the local / hindi language and the other in English. A copy each of the same shall be forwarded to the concerned Regional Office of the Ministry.
- xvi. It shall be mandatory for the project management to submit half-yearly compliance report in respect of the stipulated environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year. The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as well as JSPCB.
- xvii. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xviii. The project authorities shall also adhere to the stipulations made by the Jharkhand State Pollution Control Board.
- xix. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory.

- xx. The company in a time bound manner shall implement these conditions. The SEIAA reserves the right to stipulate additional conditions, if the same is found necessary.
- xxi. The project authorities shall inform the JSPCB, Regional Office of MoEF and SEIAA about the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- xxii. 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/SEIAA/CPCB.
- xxiii. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xxiv. The SEIAA, Jharkhand or any other competent Authority may alter modify the above conditions or stipulate any further condition in the interest of Environment Protection.
- xxv. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- xxvi. The Prescribed EC is valid as per Notification no. S.O. 1807(E) dated 12.04.2022 of MoEF&CC, Govt. of India.



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