

MINUTES OF THE 104TH MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC), JHARKHAND HELD ON 22ND, 23RD, 24TH 25TH and 26TH MAY, 2023.

The 104th meeting of State Level Expert Appraisal Committee (SEAC), Jharkhand was held on 22nd, 23rd, 24th 25th and 26th May, 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 14th, 15th, 16th, 17th and 18th April, 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 : May 22nd, 2023 [Monday]

Consideration of Proposals

1. Babhandi Stone Deposit of Shri Ashutosh Kumar Singh, Village : Babhandi, Thana : Chainpur, Thana no. : 78, Distt.: Palamu, Jharkhand (1.21 Ha).

(Proposal no. : SIA/JH/MIN/428313/2023)

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

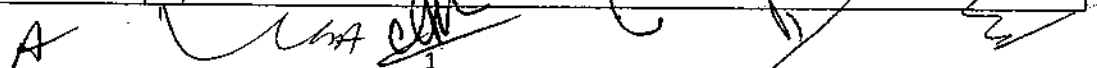
This is a new project which has been taken for appraisal on 22.05.2023.

Project Category : B2 – Application for Environment Clearance

EC Application for: Stone : 22,967 Cu.M. / year i.e 64,308 Tonnes / year

Project and Location Details :

Sl	Parameter	Details
1	Project Name	: Babhandi Stone Deposit of Sri Ashutosh Kumar Singh
2	Applicant Address:	: Sri Ashutosh Kumar Singh At Village - Nagar, P.O. + Thana – Hunterganj, District – Chatra, State – Jharkhand - 825403
3	Lease Address :	: In Mouza - Babhandi, Thana – Chainpur, Thana No. - 78, District - Palamu, Jharkhand.

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4	Applied Area	:	Ha: 1.21 Hectares	Acres: 3.00 Acres
5	Type of Land	:	Non Forest – Raiyati Land	
6	Project Cost	:	50 Lakhs	
7	EMP Budget	:	Capital: 13.01 Lakhs	Recurring: 12.47 Lakh / year
8	CSR / CER Budget	:	Rs. 1.00 Lakhs	
9	New or Expansion	:	New	
10	Mineable Reserves	:	Cu.M.: 1,14,393 Cu. M.	Tonnes: 3,20,301 Tonnes
11	Mine Life	:	4 years 11 months	
12	Man power	:	35	
13	Water Requirement	:	25.62 KLD Drinking: 0.35 KLD, Dust Suppression: 15.6 KLD, Plantation: 9.67 KLD	
14	Water Source	:	From nearby authorized sources.	
15	DG Set / power	:	60 KVA	
16	Crusher	:	No	
17	Nearest Water Body	:	Barki Nadi, flowing from South-east to North-west direction, is situated near about 560m away in the East direction of the area.	
18	Nearest Habitation	:	Babhandi village is situated approx. 1.79 Km aerial distance away in North East direction.	
19	Nearest Rail Station	:	Daltonganj Railway Station is situated approx. 18.44 Km aerial distance away in North East direction.	
20	Nearest Air Port	:	Gaya International Airport, Bihar is situated approx. 136.62 Km aerial distance away in North East direction.	
21	Nearest Forest	:	Nearest Forest is situated 260m away from the proposed project.	
22	Road & Highways	:	Highway: NH-343 is near about 13.38 Km aerial distance away in North West direction. Approach Road: Udaipur – Ranudih - Suli Road is near about 1.82 Km aerial distance away in South direction.	

CO-ORDINATES

1	Latitude	:	From N23°57'05.70"	To N23°57'11.55"
2	Longitude	:	From E83°54'51.48"	To E83°54'57.21"

LAND DETAILS :

Khata No.	Plot No.
21	924
32	909 (P)
86	904 (P)
92	949

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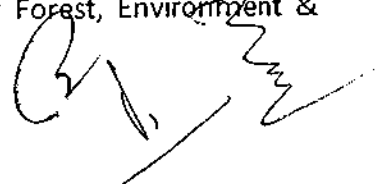
74	923
26	948
56	910
108	911 (P)

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (Lol) has been issued by DMO, Palamu, Medininagar vide letter no. 152/M, dated 20.01.2023.
2	CO	:	The CO, Chainpur, Palamu vide letter no. : 981, dated 31.12.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar & Register II.
3	DMO	:	DMO, Palamu, Medininagar vide memo no. 254/M, dated 01.02.2023 certified that 01 other Lol (6.19 Acre) has been issued within 500 m radius from proposed project site.
4	DFO Wildlife	:	Deputy Director, Palamu Tiger Project, South Division, Medininagar vide letter no. : 112, dated 14.02.2023 certified that the proposed project site is outside Eco Sensitive Zone of Palamu Wildlife Sanctuary, Betla National Park and Mahuadanr Wolf Sanctuary.
5	DFO Forest Distance	:	DFO, Medininagar Forest Division vide letter no. : 126, dated 18.01.2023 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC – cum – District Magistrate, Palamu, Medininagar vide letter no. 736/M, dated 17.04.2023 has informed that this project is part of District Survey Report (DSR) of Palamu district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Ramgarh, Palamu vide letter no. 18, dated 06.01.2023 informed that Gram Sabha conducted on 06.01.2023.
8	Mine Plan Approval	:	Directorate of Geology, Deptt. of Mines & Geology, Govt. of Jharkhand vide letter no. Bhu-Ni-Anve-402/M, dated 13.04.2023.

- 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.

Working Details

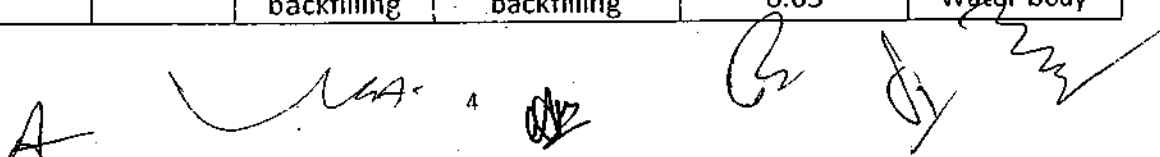
1	Mining Method	:	Opencast Mechanized Mining.
2	Quarry Area	:	5 years – 0.73 Ha
3	Waste Generation	:	5 years– 14,178 Cu.M (Gritty Soil & Intercalated Waste)
			Life of Mine – 0.73 Ha
			Life of Mine – 14,178 Cu.M (Gritty Soil & Intercalated Waste)
4	Stripping Ratio	:	1 : 0.04
5	Working Days	:	300 Days
6	Benches: size & No	:	Size: 6m x 6m, No. - 5
7	Elevation of Mine	:	Highest RL 302m AMSL, Lowest RL 296m AMSL
8	Ground Level Elevation	:	292m AMSL
9	Ultimate Working Depth	:	272m AMSL
10	Water Table	:	254m AMSL
11	Topography of Mine	:	Gently sloping land.
12	Explosive Requirement	:	9.45 Tons/year
13	Diesel/Fuel requirement	:	42 KL/year (140 Litres/day)

Production Details

Year	Production of stone		Removal of Gritty Soil (Cum)	Intercalated Waste Generation (Cum)	Bench RL in Meters
	(Cum)	(Tonne)			
1st Year	22843	63960	1269	1202	302m – 290m
2nd Year	22891	64095	1152	1205	302m – 290m
3rd Year	22793	63821	3216	1200	302m – 290m
4th Year	22891	64095	2520	1205	302m – 284m
5th Year	22967	64308	000	1209	290m – 272m
Total	114385	320279	8157	6021	

Land Use

SL	Pattern	Existing Land Use (Ha)	Proposed Current Plan Period (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Land Usage at Conceptual Stage
1	Mining Area (Quarry)	Nil	0.73 (including backfilling)	0.73 (including backfilling)	0.10	Backfill
					0.63	Water body

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			0.10 Ha)	0.10 Ha)		
2	Green Belt Within Safety Barrier	Nil	0.48	0.48	0.48	Plantation
3	Road	0.01	Nil	Nil	Nil	-
4	Unutilized	1.20	Nil	Nil	Nil	-
	TOTAL	1.21	1.21	1.21	1.21	

ENVIRONMENT MANAGEMENT

Green Belt Development

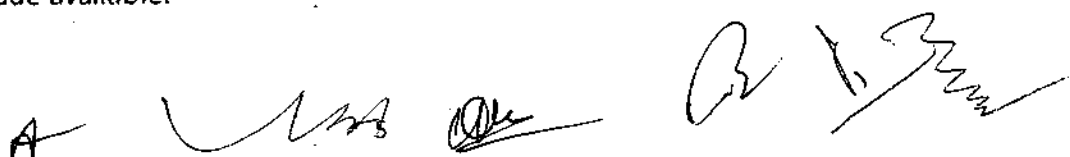
SL	Location		Area/Length	No of Trees
1	Safety Zone	:	0.48 Ha	1200 trees @ 2500 trees per ha
2	Haul /Approach Road	:	0.364 Ha	1216 trees on both sides – 3m distance
			i.e. Length 1820 width 2m	

Solid Waste Management

- Waste (Gritty Soil & Intercalated Waste) Generation will be 14,178 Cu.M. during the life of Mine.
- The area is covered with a layer of gritty soil and Intercalated waste is also present. During quarry development in 1st year gritty soil will be removed and this soil will be temporarily dumped [Area – 0.04 Ha, (L x W x H = 24m x 18m x 5m)] at the south-east part of the area with suitable precautions like constructing parapet wall, garland drain & in 2nd year onwards removed gritty soil and intercalated waste during quarry advancement will be gradually backfill from exhausted quarry in north western part of the project 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 applied area from outside or from inside the lease area to the outside
- For domestic waste water Septic Tank with Soak Pit shall be provided, discharge from Soak Pit, if any shall be used for plantation.
- It shall be ensured that quality of drinking water for the worker is hygienic and good sanitation system shall be made available.



Air Quality Management

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

Undertaking submitted affirming:

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

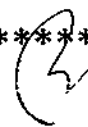
Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF & CC O.M dated 12.12.18 decided that the proposal for Babhandi Stone Deposit of Shri Ashutosh Kumar Singh, Village : Babhandi, Thana : Chainpur, Thana no. : 78, Distt.: Palamu, Jharkhand (1.21 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure - I.

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2. Babhandi Stone Deposit of M/s Mahalaxmi Enterprises (Prop. : Shri Digvijay Singh), Village : Babhandi, Thana : Chainpur, Thana no. : 78, Distt.: Palamu, Jharkhand (2.51 Ha).

(Proposal no. : SIA/JH/MIN/428347/2023)

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



This is a new project which has been taken for appraisal on 22.05.2023.

Project Category : B2 – Application for Environment Clearance

EC Application for: Stone : 61,163 Cu.M. / year i.e 1,71,255 Tonnes / year

Project and Location Details :

Sl	Parameter	Details
1	Project Name	: Babhandi Stone Deposit of M/s Mahalaxmi Enterprises
2	Applicant Address:	: M/s Mahalaxmi Enterprises Proprietor - Sri Digvijay Singh At- Patel Nagar, Chhota Govindpur, Near Durga Mandir, P.O. – Govindpur, District – East Singhbhum,, State – Jharkhand, 831015.
3	Lease Address :	: In Mouza - Babhandi, Thana – Chainpur, Thana No. - 78, District - Palamu, Jharkhand.
4	Applied Area	: Ha: 2.51 Hectares Acres: 6.19 Acres
5	Type of Land	: Non Forest – Raiyati Land
6	Project Cost	: 62 Lakhs
7	EMP Budget	: Capital: 20.42 Lakhs Recurring: 13.97 Lakh / year
8	CSR / CER Budget	: Rs. 1.24 Lakhs
9	New or Expansion	: New
10	Mineable Reserves	: Cu.M.: 3,05,338 Cu. M. Tonnes: 8,54,945 Tonnes
11	Mine Life	: 4 years 11 months
12	Man power	: 35
13	Water Requirement	: 38.67 KLD Drinking: 0.35 KLD, Dust Suppression: 19.6 KLD, Plantation: 18.72 KLD
14	Water Source	: From nearby authorized sources.
15	DG Set / power	: 60 KVA
16	Crusher	: No
17	Nearest Water Body	: Barki Nadi, flowing from South-east to North-west direction, is situated near about 530m away in the East direction of the area.
18	Nearest Habitation	: Babhandi village is situated approx. 1.74 Km aerial distance away in North East direction.
19	Nearest Rail Station	: Daltonganj Railway Station is situated approx. 18.31 Km aerial distance away in North East direction.
20	Nearest Air Port	: Gaya International Airport, Bihar is situated approx. 136.46 Km aerial distance away in North East direction.

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21	Nearest Forest	:	Nearest Forest is situated 290m away from the proposed project.
22	Road & Highways	:	Highway: NH-343 is about 13.46 Km aerial distance away in North West direction. Approach Road: Udaipur – Ranudih - Suli Road is near about 1.8 Km aerial distance away in South direction.

CO-ORDINATES



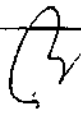

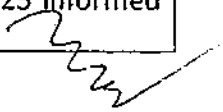
1	Latitude	:	From N 23°57'05.86"	To N 23°57'15.02"
2	Longitude	:	From E 83°54'53.91"	To E 83°55'01.74"

LAND DETAILS

Khata No.	10	22	69	75	66
Plot No.	928, 943, 944	925, 926	918, 919, 927	934, 935, 936, 937, 938	941(P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Office, Palamu, Medninagar vide letter no. 154/M, dated 20.01.2023.
2	CO	:	The CO, Chainpur, Palamu vide letter no. 980, dated 31.12.2022 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyar or Register II.
3	DMO	:	DMO, Palamu, Medninagar vide memo no. 253/M, dated 01.02.2023 certified that 01 other LoI (3.00 acre) has been issued within 500 m radius from proposed project site.
4	DFO Wild Life	:	Deputy Director, Palamu Tiger Project, South division Medninagar vide letter no. 111, dated 14.02.2023 certified that the proposed project site is outside Eco Sensitive Zone of Palamu Wildlife Sanctuary, Betla National Park and Mahuadanr Wolf Sanctuary.
5	DFO Forest Distance	:	Division Forest Officer, Medininagar Forest Division vide letter no. 60, dated 07.01.2023 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC-cum-District Magistrate, Palamu, Medninagar vide letter no. 736/M, dated 17.04.2023 has informed that this project is part of District Survey Report (DSR) of Palamu district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Ramgarh, Palamu vide letter no. 19, dated 06.01.2023 informed

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		that Gram Sabha conducted on dated 06.01.2023.
8	Mine Plan Approval	: Directorate of Geology, Deptt. of Mines & Geology, Govt. of Jharkhand vide Letter No. Bhu-Ni-Anve-403/M, dated 13.04.2023.

Working Details

1	Mining Method	: Opencast Mechanized Mining.
2	Quarry Area	: 5 years – 1.54 Ha Life of Mine – 1.54 Ha
3	Waste Generation	: 5 years– 26,533 Cu.M (Gritty Soil & Intercalated Waste) Life of Mine – 26,533 Cu.M (Gritty Soil & Intercalated Waste)
4	Stripping Ratio	: 1 : 0.03
5	Working Days	: 300 Days
6	Benches: size & No	: Size: 6m x 6m, No. - 6
7	Elevation of Mine	: Highest RL 300m AMSL, Lowest RL 292m AMSL
8	Ground Level Elevation	: 292m AMSL
9	Ultimate Working Depth	: 264m AMSL
10	Water Table	: 248m AMSL.
11	Topography of Mine	: Gently sloping land.
12	Explosive Requirement	: 28.35 Tons/year
13	Diesel/Fuel requirement	: 42 KL/year (140 Litres/day)

Production Details

Year	Production of stone		Removal of Gritty Soil (Cum)	Intercalated Waste Generation (Cum)	Bench RL in Meters
	(Cum)	(Tonne)			
1st Year	61,120	1,71,136	5720	3217	300m – 288m
2nd Year	61,039	1,70,910	Nil	3213	294m – 282m
3rd Year	61,100	1,71,081	4741	3216	282m – 276m & 300m – 288m
4th Year	61,163	1,71,255	Nil	3219	294m – 276m
5th Year	60,912	1,70,557	Nil	3207	282m – 264m
Total	3,05,334	8,54,939	10,461	16,072	

Land Use

SL	Pattern	Existing Land Use (Ha)	Proposed Current Plan Period (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Land Usage at Conceptual Stage
1	Mining Area (Quarry)	Nil	1.54 (including backfilling 0.19 Ha)	1.54 (including backfilling 0.19 Ha)	1.12	Water body
					0.42	Dead Bench Plantation
2	Green Belt	Nil	0.92	0.92	0.92	Plantation

	Within Safety Barrier					
3	Road	0.01	Nil	Nil	Nil	-
4	Blocked Area Due To Road Safety	0.03	0.03	0.03	0.03	Plantation
5	Non Mining Area	Nil	0.02	0.02	0.02	Plantation
6	Unutilized	2.47	Nil	Nil	Nil	-
	TOTAL	2.51	2.51	2.51	2.51	

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	Location		Area/Length	No of Trees
1	Safety Zone	:	0.92 Ha	2300 trees @ 2500 trees per Ha
2	Blocked Area	:	0.05 Ha	125 trees @ 2500 trees per Ha
3	Dead Bench		0.42 Ha	1050 trees @ 2500 trees per Ha
4	Haul /Approach Road	:	0.36 Ha	1204 trees on both sides – 3m distance
			i.e. Length 1800 width 2m	






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

Solid Waste Management

- Waste (Gritty Soil & Intercalated Waste) Generation will be 26,533 Cu.M. during the life of Mine.
- The area is covered with a layer of gritty soil. During quarry development in 1st & 2nd year gritty soil and intercalated waste will be removed and this soil & intercalated waste will be temporarily dumped [Area – 0.178 Ha, (L x W x H = 47m x 37m x 5m) & Area – 0.064 Ha, (L x W x H = 31m x 21m x 5m)] at the south-east part of the area with suitable precautions like parapet wall, garland drain & in & from third year generated overburden and intercalated waste will be gradually backfill in exhausted quarry up to 5th year (last 11 months).

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.

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

Air Quality Management

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

Undertaking submitted affirming:

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



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

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF & CC O.M dated 12.12.18 decided that the proposal for Babhandi Stone Deposit of M/s Mahalaxmi Enterprises (Prop. : Shri Digvijay Singh), Village : Babhandi, Thana : Chainpur, Thana no. : 78, Distt.: Palamu, Jharkhand (2.51 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

3. Temrai Stone Deposit of M/s Arun Kumar Singh, Village : Temrai, Thana : Chainpur, Thana no. : 134, Distt.: Palamu, Jharkhand (2.72 Ha).

(Proposal no. : SIA/JH/MIN/ 427601/2023)

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

Project Category : B2 – Application for Environment Clearance.

This is a new project which has been taken for appraisal on 22.05.2023.

EC Application for : Stone: 62,130 Cu.M. / year i.e 1,73,964 Tonnes / year.

Project and Location Details :

Sl	Parameter	Details
1	Project Name	: Temrai Stone Deposit of M/s Arun Kumar Singh
2	Applicant Address:	: M/s Arun Kumar Singh Proprietor - Sri Arun Kumar Singh At Vill. – Nagar, P.O. + Thana - Hunterganj, District – Chatra, State – Jharkhand. 825403
3	Lease Address :	: In Mouza Temrai, Thana – Chainpur, Thana No. - 134, District - Palamu, Jharkhand.
4	Applied Area	: Ha: 2.72 Hectares Acres: 6.71 Acres
5	Type of Land	: Non Forest – Raiyati Land
6	Project Cost	: 70 Lakhs

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7	EMP Budget	:	Capital: 13.72 Lakhs	Recurring: 11.47 Lakh / year
8	CSR / CER Budget	:	Rs. 1.40 Lakhs	
9	New or Expansion	:	New	
10	Mineable Reserves	:	Cu.M.: 4,65,755 Cu. M.	Tonnes: 13,04,113 Tonnes
11	Mine Life	:	8 years	
12	Man power	:	35	
13	Water Requirement	:	23.45 KLD Drinking: 0.35 KLD, Dust Suppression: 13.75 KLD, Plantation: 9.35 KLD	
14	Water Source	:	From nearby authorized sources.	
15	DG Set / power	:	60 KVA	
16	Crusher	:	No	
17	Nearest Water Body	:	North Koel River is flowing approx. 5.63 Km aerial distance away towards East direction.	
18	Nearest Habitation	:	Ladi village is situated approx. 1.39 Km aerial distance away in North East direction.	
19	Nearest Rail Station	:	Daltonganj Railway Station is situated approx. 7.34 Km aerial distance away in North East direction.	
20	Nearest Air Port	:	Gaya International Airport, Bihar is situated approx. 125.56 Km aerial distance away in North East direction.	
21	Nearest Forest	:	Nearest Forest is situated 278m away from the proposed project.	
22	Road & Highways	:	Highway: NH-39 is about 5.22 Km aerial distance away in North East direction.	

CO-ORDINATES

1	Latitude	:	From N 23°59'54.40"	To N 24°00'00.46"
2	Longitude	:	From E 84°00'35.33"	To E 84°00'45.51"

LAND DETAILS

Khata No.	01
Plot Nos.	208 (P), 210 (P), 220 (P) & 238 (P)

STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Office, Palamu, Medninagar vide letter no. 153/M, dated 20.01.2023.
2	CO	:	The CO, Chainpur, Palamu vide letter no. 02 म्, dated 07.01.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari"

		in R.S. Khatiyan or Register II.
3	DMO	: DMO, Palamu, Mednagar vide memo no. 252/M, dated 01.02.2023 certified that no other lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	: Deputy Director, Palamu Tiger Project, South Division Mednagar vide letter no. 109, dated 14.02.2023 certified that the proposed project site is outside Eco Sensitive Zone of Palamu Wildlife Sanctuary, Betla National Park and Mahuadanr Wolf Sanctuary.
5	DFO Forest Distance	: Division Forest Officer, Mednagar Forest Division vide letter no. 125, dated 18.01.2023 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	: The DC-cum-District Magistrate, Palamu, Mednagar vide letter no. 736/M, dated 17.04.2023 has informed that this project is part of District Survey Report (DSR) of Palamu district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	: BDO, Chainpur, Palamu vide letter no 23, dated 07.01.2023 informed that Gram Sabha conducted on dated 07.01.2023.
8	Mine Plan Approval	: Directorate of Geology, Deptt. of Mines & Geology, Govt. of Jharkhand vide Letter No. Bhu-Ni-Anve- 404/M dated 13.04.2023.

Working Details

1	Mining Method	: Opencast Mechanized Mining.
2	Quarry Area	: 5 years – 1.563 Ha
3	Waste Generation	: 5 years– 32,773 Cu.M (Gritty Soil & Intercalated Waste)
4	Stripping Ratio	: 1 : 0.04
5	Working Days	: 300 Days
6	Benches: size & No	: Size: 6m x 6m, No. - 6
7	Elevation of Mine	: Highest RL 264m AMSL, Lowest RL 262m AMSL
8	Ground Level Elevation	: 262m AMSL
9	Ultimate Working Depth	: 228m AMSL
10	Water Table	: 214m AMSL
11	Topography of Mine	: Gently sloping land.
12	Explosive Requirement	: 28.35 Tons/year
13	Diesel/Fuel requirement	: 42 KL/year (140 Litres/day)

Production Details

Year	Production of stone		Removal of Gritty Soil (Cum)	Intercalated Waste Generation (Cum)	Bench RL in Meters
	(Cum)	(Tonne)			
1st Year	62,130	1,73,964	8320	3270	264m – 252m
2nd Year	62,101	1,73,882	000	3269	258m – 228m
3rd Year	62,099	1,73,874	3738	3268	264m – 228m
4th Year	62,130	1,73,964	4370	3270	264m – 252m
5th Year	62,092	1,73,858	000	3268	252m – 234m
Total	3,10,552	8,69,542	16,428	16,345	

Land Use

SL	Pattern	Existing Land Use (Ha)	Proposed Current Plan Period (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Land Usage at Conceptual Stage
1	Mining Area (Quarry)	Nil	1.563 (including backfilling 0.353 Ha)	1.993 (including backfilling 0.58 Ha)	1.993	Water body
2	Green Belt Within Safety Barrier	Nil	0.71	0.71	0.71	Plantation
	Road	0.02	0.017	0.007	0.007	Public Use
3	Temporary dump including parapet wall & garland drain	Nil	0.070	Nil	--	--
4	Blocked Area Due To Excluded Plot Road Safety	0.01	0.01	0.01	0.01	Plantation
5	Unutilized	2.69	0.350	Nil	Nil	-
	TOTAL	2.72	2.72	2.72	2.72	

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	Location	Area/Length	No of Trees
1	Safety Zone	0.71 Ha	1775 trees @ 2500 trees per Ha
2	Blocked Area	0.01 Ha	25 trees @ 2500 trees per Ha
3	Haul /Approach Road	0.22 Ha	536 trees on both sides – 3m

		i.e. Length 1100 width 2m	distance
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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 with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

Solid Waste Management

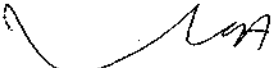



- Waste (Gritty Soil & Intercalated Waste) Generation will be 42,436 Cu.M. during the life of Mine.
- The area is covered with a layer of gritty soil. During quarry development in 1st and 2nd year gritty soil and intercalated waste will be removed and temporarily dumped [Area – 0.23 Ha, (L x W x H = 63m x 38m x 5m) & Area – 0.14 Ha, (L x W x H = 58m x 26m x 5m)] at the south - east part of the area with suitable precautions like constructing parapet wall, garland drain & from 3rd & 4th year generated overburden and intercalated waste & temporarily dumped materials will be gradually backfill within the exhausted quarry & in 5th year generated intercalated waste will be temporarily dumped [Area – 0.06 Ha, (L x W x H = 28m x 27m x 5m)] at the south-eastern part of the area with suitable precautions like constructing parapet wall, garland drain. In conceptual period total removal gritty soil & intercalated waste will be backfill within the exhausted quarry.

Water Quality Management

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

Air Quality Management

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

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

Undertaking submitted affirming :

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

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF & CC O.M dated 12.12.18 decided that the proposal for Temrai Stone Deposit of M/s Arun Kumar Singh, Village : Temrai, Thana : Chainpur, Thana no. : 134, Distt.: Palamu, Jharkhand (2.72 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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4. Singari Stone Deposit of M/s Rubal Stone Mines (Prop. : Shri Satyendra Kumar), Village : Singari, Thana : Angara, Thana no. : 70, Distt.: Ranchi, Jharkhand (1.06 Ha).

(Proposal no.: SIA/JH/MIN/428407/2023)

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

This is a new project which has been taken for appraisal on 22.05.2023.

Project Category : B2 – Application for Environment Clearance

EC Application for : Stone: 38,353 Cu.M. / year i.e 1,07,388 Tonnes / year

Project and Location Details :

Sl	Parameter	Details
1	Project Name	: Singari Stone Deposit of M/s Rubal Stone Mines
2	Applicant Address:	: M/s Rubal Stone Mines Proprietor – Sri Satyendra Kumar At - Niche Tola, Near Shiv Temple, Village + P.O. – Korambe, P.S. – Gola, District – Ramgarh, State – Jharkhand, Pin Code – 829110
3	Applied Area Address :	: In Mouza- Singari, Thana - Angara, Thana Number - 70, District - Ranchi, Jharkhand.
4	Applied Area	: Ha: 1.06 Hectares Acres: 2.62 Acres
5	Type of Land	: Non Forest – Raiyati Land
6	Project Cost	: 54 Lakhs
7	EMP Budget	: Capital: 5.91 Lakhs Recurring: 6.61 Lakh / year
8	CSR / CER Budget	: Rs. 1.08 Lakhs
9	New or Expansion	: New
10	Mineable Reserves	: Cu.M.: 1,91,620 Cu. M. Tonnes: 5,36,536 Tonnes
11	Mine Life	: 5 years
12	Man power	: 31
13	Water Requirement	: 10.15 KLD Drinking: 0.31 KLD, Dust Suppression: 5.65 KLD, Plantation: 4.19 KLD
14	Water Source	: From nearby authorized sources.
15	DG Set / power	: 60 KVA
16	Crusher	: No
17	Nearest Water Body	: Subarnarekha River is flowing near about 4.17 Km away in the North direction from the applied area.
18	Nearest Habitation	: Singari village is situated approx. 0.66 Km aerial distance away in North East direction.
19	Nearest Rail Station	: Gautamdhara Railway Station is situated approx. 7.98 Km aerial distance away in South West direction.
20	Nearest Air Port	: Birsa Munda Airport, Ranchi, Jharkhand is situated approx. 36.94 Km aerial distance away in South-West direction.

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21	Nearest Forest	:	More than 250m away from the proposed project.
22	Road & Highways	:	Nearest Highways: SH-1 is about 6.16 Km aerial distance away in South West direction. Approach Road: Singari – Kuchu Road is about 0.48 Km aerial distance away in South direction.

CO-ORDINATES

1	Latitude	:	From N23°24'43.59"	To N23°24'47.77"
2	Longitude	:	From E85°40'18.55"	To E85°40'22.86"

LAND DETAILS :

Khata No.	Plot No.
101	293 & 294

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Ranchi vide letter no. 186/M, dated 04.02.2023.
2	CO	:	The CO, Angara, Ranchi vide letter no. : 881(ii), dated 08.12.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Ranchi vide memo no. 480/M, dated 11.04.2023 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wildlife	:	DFO, Wildlife Ranchi vide letter no. : 267, dated 22.03.2023 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Ranchi Forest Division vide letter no. : 166, dated 11.01.2023 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC – cum – District Magistrate, Ranchi vide letter no. 521/M, dated 24.04.2023 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, Angara, Ranchi vide letter no. 2002 (ii), dated 28.11.2022

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		informed that Gram Sabha conducted on 26.11.2022.
8	Mine Plan Approval	: AMO, Ranchi vide memo no. 453/M, dated 27.03.2023.

Working Details

1	Mining Method	: Opencast Mechanized Mining.
2	Quarry Area	: 5 years – 0.77 Ha Life of Mine – 0.77 Ha
3	Waste Generation	: 5 years– 14,394 Cu.M (Gritty Soil & Intercalated Waste) Life of Mine – 14,394 Cu.M (Gritty Soil & Intercalated Waste)
4	Stripping Ratio	: 1 : 0.02
5	Working Days	: 300 Days
6	Benches: size & No	: Size: 6m x 6m, No. – 7.
7	Elevation of Mine	: Highest RL 594m AMSL, Lowest RL 591m AMSL
8	Ground Level Elevation	: 591m AMSL
9	Ultimate Working Depth	: 552m AMSL
10	Water Table	: 540m AMSL
11	Topography of Mine	: Gently sloping land.
12	Explosive Requirement	: 18.9 Tons/year
13	Diesel/Fuel requirement	: 42 KL/year (140 Litres/day)

Production Details

Year	Production of stone		Removal of Gritty Soil (Cum)	Intercalated Waste Generation (CuM)	Bench RL in Meters
	(Cum)	(Tonne)			
1st Year	38,323	1,07,305	2775	2018	594m – 582m
2nd Year	38,353	1,07,388	Nil	2019	588m – 576m
3rd Year	38,323	1,07,305	1530	2018	594m – 582m
4th Year	38,353	1,07,388	Nil	2019	582m – 570m
5th Year	38,268	1,07,150	Nil	2015	576m – 552m
Total	1,91,620	5,36,536	4305	10,089	

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Land Use

SL	Pattern	Existing Land Use (Ha)	Proposed Current Plan Period (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Land Usage at Conceptual Stage
1	Mining Area (Quarry)	Nil	0.77 (including backfilling 0.13 Ha)	0.77 (including backfilling 0.13 Ha)	0.77	Water body
2	Green Belt Within Safety Barrier	Nil	0.29	0.29	0.29	Plantation
3	Road	0.008	--	--	--	--
4	Unutilized	1.052	Nil	Nil	Nil	-
	TOTAL	1.06	1.06	1.06	1.06	

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	Location		Area/Length	No of Trees
1	Safety Zone	:	0.29 Ha	725 trees @ 2500 trees per Ha
2	Haul /Approach Road	:	0.096 Ha i.e. Length 0.48 Km width 2m	322 trees on both sides – 3m distance

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

Solid Waste Management

- Waste (Gritty Soil & Intercalated Waste) Generation will be 14,394 Cu.M. during the life of Mine.
- The area is covered with a layer of gritty soil. During quarry development in 1st year gritty soil and intercalated waste will be removed and 2nd year intercalated waste will be removed this materials will be temporarily dumped [1st year Area – 0.09 Ha, (L x W x H = 37m x 28m x 5m), 2nd year Area – 0.04 Ha, (L x W x H = 29m x 20m x 5m) at the north east part of the applied area with suitable precautions like constructing parapet wall, garland drain & in 3rd year removal gritty soil, intercalated waste and existing dumped materials will be backfilled within the exhausted quarry at south west side, in 4th year removal intercalated waste material is

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backfilled adjoining to the existing backfilled side and 5th year removal intercalated waste material will be backfilled within the exhausted quarry.

Water Quality Management

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

Air Quality Management


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

Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The water required for the mining activities shall be supplied by the tanker from nearby authorized sources.
- c. The letter issued in respect of District Survey Report (DSR), is issued by the competent authority. I will abide by any directives issued by any court of law in future.

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- d. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- e. The Boundary Pillars of the proposed mine applied area will be maintained properly.
- f. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- g. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- h. Sufficient water spray using water tankers will be done for effective dust suppression within the mine applied area and on haul roads.
- i. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- j. If any tree felling than necessary permission shall be taken from the competent authority.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF & CC O.M dated 12.12.18 decided that the proposal for Singari Stone Deposit of M/s Rubal Stone Mines (Prop. : Shri Satyendra Kumar), Village : Singari, Thana : Angara, Thana no. : 70, Distt.: Ranchi, Jharkhand (1.06 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

5. Ichadag Stone Deposit of M/s Elite Power Projects & Construction Pvt. Ltd., Village : Ichadag, Thana : Ormanjhi, Thana no. : 43, Distt.: Ranchi, Jharkhand (0.90 Ha).

(Proposal no. : SIA/JH/MIN/429105/2023)

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

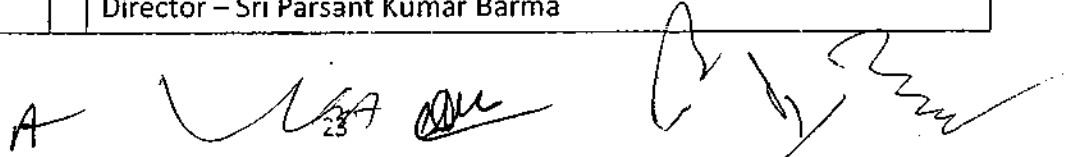
This is a new project which has been taken for appraisal on 22.05.2023.

Project Category: B2 – Application for Environment Clearance.

EC Application for: Stone: 14,592 Cu.M. / year i.e 40,858 Tonnes / year.

Project and Location Details :

Sl	Parameter	Details
1	Project Name	: Ichadag Stone Deposit of Elite Power Projects & Construction Pvt. Ltd.
2	Applicant Address:	: Elite Power Projects & Construction Pvt. Ltd. Director – Sri Parsant Kumar Barma

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		At 3D, Vatika Apartment, Line Tank Road, Thana – Kotwali, District - Ranchi, State – Jharkahnd, Pin Code – 834 001	
3	Applied Area Address :	In Mouza- Ichadag, Thana Name - Ormanjhi, Thana Number - 43, District - Ranchi, Jharkhand.	
4	Applied Area	Ha: 0.90 Hectares	Acres: 2.23 Acres
5	Type of Land	Non Forest – Raiyati Land	
6	Project Cost	48 Lakhs	
7	EMP Budget	Capital: 11.70 Lakhs	Recurring: 11.03 Lakh / year
8	CSR / CER Budget	Rs. 0.96 Lakhs	
9	New or Expansion	New	
10	Mineable Reserves	Cu.M.: 72,760 Cu. M.	Tonnes: 2,03,727 Tonnes
11	Mine Life	5 years	
12	Man power	35	
13	Water Requirement	23.29 KLD Drinking: 0.35 KLD, Dust Suppression: 13.56 KLD, Plantation: 9.38 KLD	
14	Water Source	From nearby authorized sources.	
15	DG Set / power	60 KVA	
16	Crusher	No	
17	Nearest Water Body	Doma Nadi is flowing near about 6.17 Km away in the South – West direction from the applied area. Getalsud Dam is situated near about 8.21 Km away in the South – East direction from the applied area	
18	Nearest Habitation	Piska village is situated approx. 0.68 Km aerial distance away in South East direction. Ichadag village is situated approx. 0.84 Km aerial distance away in South West direction.	
19	Nearest Rail Station	Ramgarh Cantt Railway Station is situated approx. 9.41 Km aerial distance away in North East direction.	
20	Nearest Air Port	Birsa Munda Airport, Ranchi, Jharkhand is situated approx. 29.27 Km aerial distance away in South-West direction.	
21	Nearest Forest	More than 250m away from the proposed project.	
22	Road & Highways	Approach Road: NH-33 is about 1.31 Km aerial distance away in East direction.	

CO-ORDINATES

1	Latitude	:	From N23°32'14.54"	To N23°32'18.90"
2	Longitude	:	From E85°28'59.69"	To E85°29'05.02"

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LAND DETAILS :

Khata No.	Plot No.
144	1368, 1370, 1371 & 1374

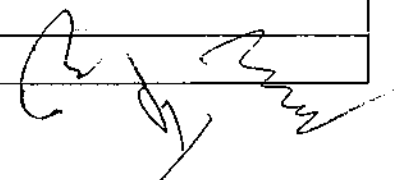
STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (Lol) has been issued by DMO, Ranchi vide letter no. 397/M, dated 09.03.2023.
2	CO	:	The CO, Ormanjhi (Ranchi) vide letter no. : 46 (ii), dated 04.01.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Ranchi vide memo no. 515/M, dated 21.04.2023 certified that 01 other mining lease area (3.38 acre) exists within 500 m radius from proposed project site.
4	DFO Wildlife	:	DFO, Wildlife Ranchi vide letter no. : 62, dated 20.01.2023 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Ranchi Forest Division vide letter no. : 4873, dated 01.12.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC – cum – District Magistrate, Ranchi vide letter no. 521/M, dated 24.04.2023 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. 89 (ii), dated 25.01.2023 informed that Gram Sabha conducted on 19.01.2023.
8	Mine Plan Approval	:	AMO, Ranchi vide memo no. 449/M, dated 25.03.2023.

Working Details

1	Mining Method	:	Opencast Mechanized Mining.
2	Quarry Area	:	5 years – 0.48 Ha Life of Mine – 0.48 Ha
3	Waste Generation	:	5 years– 7219 Cu.M Life of Mine – 7219 Cu.M (Gritty Soil & Intercalated Waste) (Gritty Soil & Intercalated Waste)
4	Stripping Ratio	:	1 : 0.03
5	Working Days	:	300 Days
6	Benches: size & No	:	Size: 6m x 6m, No. – 4.

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7	Elevation of Mine	:	Highest RL 673m AMSL, Lowest RL 661m AMSL
8	Ground Level Elevation	:	658m AMSL
9	Ultimate Working Depth	:	649m AMSL
10	Water Table	:	635m AMSL
11	Topography of Mine	:	Gently sloping land in western side and a sloppy hilly land in eastern side
12	Explosive Requirement	:	9.48 Tons/year
13	Diesel/Fuel requirement	:	42 KL/year (140 Litres/day)

Production Details

Year	Production of stone		Removal of Gritty Soil (Cum)	Intercalated Waste Generation (CuM)	Bench RL in Meters
	(Cum)	(Tonne)			
1st Year	14,547	40,732	720	765	673m – 661m
2nd Year	14,592	40,858	1008	768	667m – 661m
3rd Year	14,592	40,858	Nil	768	661m – 649m
4th Year	14,573	40,804	1662	767	667m – 661m 663m – 657m
5th Year	14,455	40,474	Nil	761	661m – 649m
Total	72,759	2,03,726	3390	3829	

Land Use

SL	Pattern	Existing Land Use (Ha)	Proposed Current Plan Period (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Land Usage at Conceptual Stage
1	Mining Area (Quarry)	Nil	0.48 (including backfilling 0.11 Ha)	0.48 (including backfilling 0.11 Ha)	0.42	Water body
					0.06	Dead bench Plantation
2	Green Belt Within Safety Barrier	Nil	0.42	0.42	0.42	Plantation
3	Road	0.01	--	--	--	--
4	Unutilized	0.89	Nil	Nil	Nil	-
	TOTAL	0.90	0.90	0.90	0.90	

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	Location	Area/Length	No of Trees
1	Safety Zone	0.42 Ha	1050 trees @ 2500 trees per Ha

2	Dead Bench	:	0.06 Ha	150 trees @ 2500 trees per Ha
3	Haul /Approach Road	:	0.342 Ha	1144 trees on both sides – 3m distance
			i.e. Length 1.71 Km width 2m	

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

Solid Waste Management

- Waste (Gritty Soil & Intercalated Waste) Generation will be 7219 Cu.M. during the life of Mine.
- The area is covered with a layer of gritty soil. During quarry development in 1st year, 2nd year & 3rd year gritty soil and intercalated waste will be removed and this gritty soil and intercalated waste will be temporarily dumped [1st year Area – 0.029 Ha, (L x W x H = 27m x 11m x 5m), 2nd year Area – 0.036 Ha, (L x W x H = 22m x 16m x 5m) & 3rd year Area – 0.015 Ha, (L x W x H = 17m x 9m x 5m)] at the west part of the applied area with suitable precautions like constructing parapet wall, garland drain & in & from fourth year removal gritty soil, intercalated waste and existing dumped materials will be backfilled within the exhausted quarry.

Water Quality Management

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

Air Quality Management

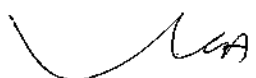



- Dust extractor or wet drilling shall be followed to control dust at source of emission during drilling.

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

Undertaking submitted affirming :

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

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF & CC O.M dated 12.12.18 decided that the proposal for Ichadag Stone Deposit of M/s Elite Power Projects & Construction Pvt. Ltd., Village : Ichadag, Thana : Ormanjhi, Thana no. : 43, Distt.: Ranchi, Jharkhand (0.90 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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6. Girdhartanr Stone Deposit of M/s Star Construction (Partners : Shri Amit Kumar Soni), Village : Girdhartanr, Circle : Chas, Distt.: Bokaro, Jharkhand (2.954 Ha).

(Proposal no. : SIA/JH/MIN/428366/2023)

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

This is a new project which has been taken for appraisal on 22.05.2023.

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 96,000 cum/annum or 240000 TPA

Project and Location Details :

Sl	Parameter	Details	
1	Project Name	: Girdhartanr Stone Deposit	
2	Lessee:	: M/S Star Construction (Partners - Sri Amit Kumar Soni)	
3	Lease Address	: Village – Girdhartanr, Circle - Chas, District – Bokaro, State - Jharkhand	
4	Lease Area	: 2.954 ha	Acres- 7.30 Acres
5	Type of Land	: Non Forest – Raiyati Land	
6	Project Cost	: Rs. 40 Lakhs	
7	EMP Budget	: Capital: 4.52 Lakhs	Recurring: 4.27 Lakh / year
8	New or Expansion	: New	
9	Mineable Reserves	: cum.: 960000.0 cum	Tonnes: 2400000.00 tons
10	Mine Life	: 10 years	
11	Man power	: 26	
12	Water Requirement	: 8.85 KLD(Drinking: 0.26 KLD, Dust Suppression: 3.50 KLD, Plantation: 5.09 KLD)	
13	Water Source	: From Nearby villages by tankers	
14	DG Set / power	: 500 KVA	
15	Crusher	: With Crusher	
16	Nearest Water Body	: Izri River, approx. 0.26 km towards SW direction of mine site.	
17	Nearest Habitation	: Girdhartanr, at approx 0.50 km towards SSW direction.	
18	Nearest Rail Station	: Radhagaon Railway station, approx. 10.0 km towards WNW direction.	
19	Nearest Air Port	: Birsa Munda Airport, Ranchi, approx.92.0 km towards WSW direction.	
20	Nearest Forest	: Open jungle, approx. 1.0 km towards SW direction of mine site. Open mixed jungle, approx. 2.0 km towards N direction of mine site.	

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21	Road & Highways	:	SH - 12, approx. 5.80 km in ENE direction. NH - 18, approx. 92.0 km in WSW direction.
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CO-ORDINATES




1	Latitude		From 23°33'51.76" N	To 23°33'59.11" N
2	Longitude		From 86°11'04.11" E	To 86°10'56.48" E

LAND DETAILS :

Khata No.	Plot No.
01 & 18 (Old)	23, 24, 25, 26, 27 (P) & 28 (P)
01 & 22 (New)	

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Bokaro vide letter no. 2956/Khanan, dated 31.10.2019.
2	CO	:	The CO, Chas (Bokaro) vide letter no. : 311, dated 27.02.2019 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyan & Register II.
3	DMO	:	DMO, Bokaro vide memo no. 151/Khanan, dated 18.01.2020 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wildlife	:	DFO, Wildlife Hazaribag vide letter no. : 1405, dated 22.07.2019 certified that the proposed project site is outside Eco Sensitive Zone of Topchanchi Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Bokaro Forest Division vide letter no. : 843, dated 11.03.2019 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	This project is mentioned in District Survey Report (DSR) of Bokaro district in Page No. 64 at Sl. No. 06).
7	Gram Sabha	:	Gram Sabha conducted on 08.09.2019.
8	Mine Plan Approval	:	Assistant Mining Officer, Deputy Director of Mines Office, Dhanbad Circle, Dhanbad vide memo no. 06/DDM, dated 09.01.2020.

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Working Details

1	Mining Method	:	Opencast cast semi mechanized method
2	Quarry Area	:	1.294ha. Or 3.197Acres
3	Waste Generation	:	58543.75 cum or 146359.37tons
4	Stripping Ratio	:	1: 0.22
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	220AMSL to 221 AMSL
8	Ground Level Elevation	:	185 AMSL
9	Ultimate Working Depth	:	180 AMSL
10	Water Table	:	170AMSL (15 mbgl)
11	Topography of Mine	:	Area represents Undulatingtopography
12	Explosive Requirement	:	70kg/day
13	Diesel/Fuel requirement	:	110 litre/day

Production Details

Year	Production of stone (cum)	Production of stone (tons)	Total Waste in (cum)	Bench RL in Meters
1 st	96000	240000	58543.75	221mRL – 210mRL
2 nd	96000	240000	-	216mRL – 204mRL
3 rd	96000	240000	-	210mRL – 198mRL
4 th	96000	240000	-	204mRL – 192mRL
5 th	96000	240000	-	198mRL – 186mRL
Total	480000.0	1200000.00	58543.75	

Land Use

After End of Plan Period	Hect	Acres
QUARRY	1.294(0.005ha road comes under)	3.197
MINE ROAD	0.021	0.051
PLANTATION	0.569	1.407
OVERBURDEN / DUMP	0.660	1.630
PROPOSED CRUSHER	0.040	0.098
TOTAL	2.584	6.383
BALANCE	0.370	0.917

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ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.569 ha	1423
2	Along Approach Road	0.11 km	150
3	Plantation (in Consultation with Gram Panchayat & Local Authorities		500

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

Solid Waste Management

There is total 58543.75 (compact) cum waste generated during this Mining Plan period, The stone is exposed throughout the area on the upper part of the hillocks. On that basis, 100% recovery' of rock is considered.

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.





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- 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 Girdhartanr Stone Deposit of M/s Star Construction (Partners : Shri Amit Kumar Soni), Village : Girdhartanr, Circle : Chas, Dist.: Bokaro, Jharkhand (2.954 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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7. Jhagrudih Stone Deposit of M/s Om Mining Industries (Partners : Shri Arvind Kumar Pathak & Shri Naresh Mahto), Village : Jhagrudih, Circle : Deori, Distt.: Giridih, Jharkhand (1.21 Ha).

(Proposal no. : SIA/JH/MIN/428064/2023)

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 33441.12 cum/annum or 90291.04 TPA Stone, 36456 cum/annum or 69266.4 TPA Morrum





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

This is a new project which has been taken for appraisal on 22.05.2023.

Project and Location Details :

Sl	Parameter	Details	
1	Project Name	: Jhagrudih Stone Deposit	
2	Lessee:	: M/s Om Mining Industries, Partner – Sri Arvind Kumar Pathak & Sri Naresh Mahto	
3	Lease Address	: Village – Jhagrudih, Circle- Deori, District – Giridih, Jharkhand	
4	Lease Area	: 1.21ha	Acres- 2.99Acres
5	Type of Land	: Non Forest – Raiyati Land	
6	Project Cost	: Rs. 40 Lakhs	
7	EMP Budget	: Capital: 4.556 Lakhs	Recurring: 4.27 Lakh / year
8	New or Expansion	: New	
9	Mineable Reserves	Cum : 334728.80 Stone cum.: 217266.0Morrom	Tonnes: 903767.76 tons stone and 160029.4 tones Morrum
10	Mine Life	: 10 years	
11	Man power	: 26	
12	Water Requirement	: 7.005 ~7.0KLD(Drinking: 0.26 KLD, Dust Suppression: 3.545 KLD, Plantation: 3.20KLD)	
13	Water Source	: From Nearby villages by tankers	
14	DG Set / power	: 200 KVA	
15	Crusher	: No crusher	
16	Nearest Water Body	: Godhua Nala-Approx. 4.5 km towards NW direction of mine site.	
17	Nearest Habitation	: Jhagrudih, at approx 0.36 km towards SE directlon.	
18	Nearest Rail Station	: Giridih Railway station, approx. 35.87 km towards SSE direction.	
19	Nearest Air Port	: Birsa Munda International Airport, approx. 162.81 km towards SW direction	

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20	Nearest Forest	:	PF near Karmatanr-2.67 Km South direction. PF near Pathratnr-4.34Km South direction.
21	Road & Highways	:	Jamua-Deoghar Road-Approx. 3.45 km. in South direction.

CO-ORDINATES

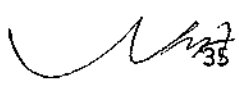

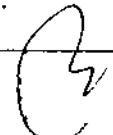
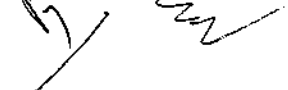
1	Latitude		From 24°30'06.196" N	To 24°30'11.4711" N
2	Longitude		From 86°16'04.2542" E	To 86°16'08.7481" E

LAND DETAILS :

Khata No.	Plot No.
11	09

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Giridih vide letter no. 369/M, dated 08.04.2023.
2	CO	:	The CO, Deori, Giridih vide letter no. : 142, dated 23.03.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in Khatiyan.
3	DMO	:	DMO, Giridih vide memo no. 377/M, dated 10.04.2023 certified that 01 other LoI (6.22 Acre) has been issued within 500 m radius from proposed project site.
4	DFO Wildlife	:	DFO, Wildlife Hazaribag vide letter no. : 588, dated 22.03.2023 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. : 1293, dated 29.03.2023 certified that the distance of reserved / protected forest is more than 500 m from proposed project site.
6	DSR	:	The DC – cum – District Magistrate, Giridih vide letter no. 431/M, dated 25.04.2023 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 25.03.2023.

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8	Mine Plan Approval	:	DMO, Koderma vide letter no. 763, dated 15.04.2023.
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Working Details

1	Mining Method	:	Opencast other than fully mechanized (OTFM) Method
2	Quarry Area	:	1.21ha. Or 2.99Acres
3	Waste Generation	:	3407.99 cum or 9201.57tons
4	Stripping Ratio	:	1: 0.007
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	326AMSL to 338 AMSL
8	Ground-Level Elevation	:	326AMSL
9	Ultimate Working Depth	:	315 AMSL
10	Water Table	:	306 AMSL (20mbgl)
11	Topography of Mine	:	Area represents undulating topography
12	Explosive Requirement	:	90 kg/day
13	Diesel/Fuel requirement	:	90 litre/day

Production Details

Year	Production of Stone in in (Tonnes)	Morum as a waste in cum	Intercalated waste in Cum	Total Waste in Cum
1st	89979.87	64174.6	680.12	64854.72
2nd	90239.18	0	682.08	682.08
3rd	90239.18	0	682.08	682.08
4th	90291.04	0	682.47	682.47

5th	90128.05	0	681.24	681.24
Total	450877.32	64174.6	3407.99	67582.59

Land Use

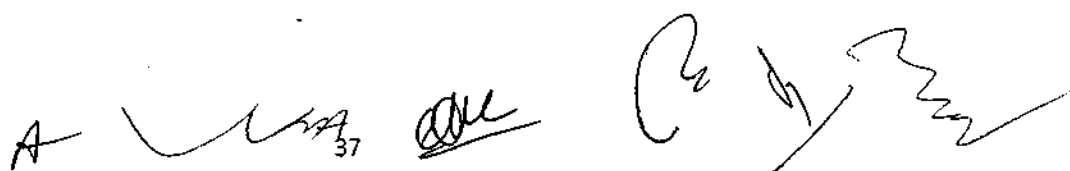
Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Quarry	--	0.750	0.825 (Will be converted in to water reservoir)
Waste Dump	--	0.073	--
Road	--	0.002	-
Infrastructure	--	--	-
Safety Zone	--	0.385 (Plantation within Safety Zone)	0.385 (Plantation within Safety Zone)
Total	--	1.21	-
Balance	1.21	0	-
Lease Hold Area	1.21	1.21	1.21

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.385 ha	963
2	Along Approach Road	0.54 km	540

- 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 6287.98 cum or 16977.54 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 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 Jhagrudih Stone Deposit of M/s Om Mining Industries (Partners : Shri Arvind Kumar Pathak & Shri Naresh Mahto), Village : Jhagrudih, Circle : Deori, Distt.: Giridih, Jharkhand (1.21 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

8. Jhagrudih Stone Deposit of Shri Eklavya Kumar, Village : Jhagrudih, Circle : Deori, Distt.: Giridih, Jharkhand (2.517 Ha).

(Proposal no. : SIA/JH/MIN/ 429121 /2023)

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 67742.5 cum/annum or 182904.75 TPA Stone, 75000.0 cum/annum or 142500.00 TPA Morrum.

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

This is a new project which has been taken for appraisal on 22.05.2023.

Project and Location Details:

Sl	Parameter	Details	
1	Project Name	:	Jhagrudih Stone Deposit
2	Lessee:	:	Sri Eklavya Kumar
3	Lease Address	:	Village – Jhagrudih, Circle- Deori, District – Giridih, Jharkhand
4	Lease Area	:	2.517ha Acres- 6.22Acres

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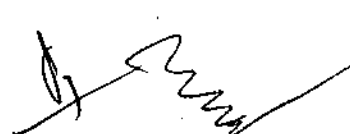
5	Type of Land	:	Non Forest – Raiyati Land
6	Project Cost	:	Rs. 70 Lakhs
7	EMP Budget	:	Capital: 5.135 Lakhs Recurring: 4.27 Lakh / year
8	New or Expansion	:	New
9	Mineable Reserves	:	Cum : 677425 cum Stone cum.: 176100.0.0cum Morrom Tonnes: 1829047.5 tonnes stone and 334590 tonnes Morrom
10	Mine Life	:	10 years
11	Man power	:	30
12	Water Requirement	:	9.94 ~10.00KLD(Drinking: 0.30 KLD, Dust Suppression: 5.58 KLD, Plantation: 4.06KLD)
13	Water Source	:	From Nearby villages by tankers
14	DG Set / power	:	200 KVA
15	Crusher	:	With crusher
16	Nearest Water Body	:	Godhua Nala-Approx. 4.5 km towards NW direction of mine site.
17	Nearest Habitation	:	Jhagrudih, at approx 0.38 km towards SE direction.
18	Nearest Rail Station	:	Giridih Railway station, approx. 36.00 km towards SSE direction.
19	Nearest Air Port	:	Birsa Munda International Airport, approx. 163 km towards SW direction
20	Nearest Forest	:	PF near Karmatanr-2.67 Km South direction. PF near Pathratnr-4.34Km South direction.
21	Road & Highways	:	Jamua-Deoghar Road-Approx. 3.45 km. in South direction.

CO-ORDINATES

1	Latitude	From 24°30'10.89"N	To 24°30'16.95" N
2	Longitude	From 86°16'06.15" E	To 86°16'15.44" E

LAND DETAILS :

Khata No.	Plot No.
10 & 12	08 & 21 (P)

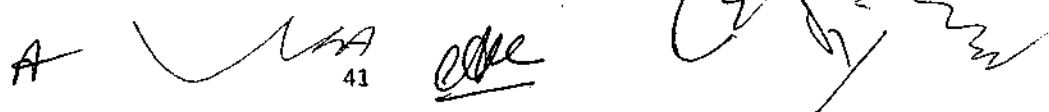
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STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Giridih vide letter no. 373/M, dated 08.04.2023.
2	CO	:	The CO, Deori, Giridih vide letter no. : 92, dated 27.02.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in Khatiyon.
3	DMO	:	DMO, Giridih vide memo no. 378/M, dated 10.04.2023 certified that 01 other LoI (2.99 Acre) has been issued within 500 m radius from proposed project site.
4	DFO Wildlife	:	DFO, Wildlife Hazaribag vide letter no. : 2493, dated 10.12.2022 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. : 4102, dated 07.12.2022 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. 431/M, dated 25.04.2023 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 25.02.2023.
8	Mine Plan Approval	:	DMO, Koderma vide letter no. 764, dated 15.04.2023.

Working Details

1	Mining Method	:	Opencast other than fully mechanized (OTFM) Method
2	Quarry Area	:	2.517ha. Or 6.22Acres
3	Waste Generation	:	3048.41 cum or 8230.70tons
4	Stripping Ratio	:	1: 0.007
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	328AMSL to 342 AMSL
8	Ground Level Elevation	:	326AMSL
9	Ultimate Working Depth	:	315 AMSL
10	Water Table	:	306 AMSL (20mbgl)
11	Topography of Mine	:	Area represents undulating topography
12	Explosive Requirement	:	90 kg/day



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13	Diesel/Fuel requirement	:	120 litre/day
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Production Details

Year	Production of Stone in (Tonnes)	Morum as waste in cum	Intercalated waste in Cum	Total Waste in Cum
1st	182904.75	79166.66	1382.50	80549.16
2nd	182903.43	43510	1382.49	44892.49
3rd	182904.75	62045.55	1382.50	63428.05
4th	182904.75	0	1382.50	609.68
5th	182904.75	0	1382.50	609.68
Total	914522.43	184722.21	6912.49	191634.7

Land Use


Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Quarry	--	1.645	1.917 (Will be converted in to water reservoir)
Road	--	0.002	-
Waste Dump	--	0.150 (within Lease area)	-
Crusher	-	0.120 (within Lease area)	-
Safety Zone	--	0.600 (Plantation)	0.600 (Plantation)
Total	-	2.517	2.517
Balance	2.517	-	-
Lease Hold Area	2.517	2.517	2.517

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.600 ha	1500
2	Along Approach Road	0.43 km	430

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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

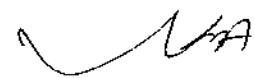



Total 6287.98 cum or 16977.54 tons waste during the plan period will be generated. Part of the waste shall be utilized for maintenances of the village road and making of approach road, haul road etc. and part of the waste shall be temporary dump in the western side of the applied area.

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 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

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- 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 Jhagrudih Stone Deposit of Shri Eklavya Kumar, Village : Jhagrudih, Circle : Deori, Distt.: Giridih, Jharkhand (2.517 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

9. Hethli Kanhai Stone Deposit of M/s Ekalavya Kumar (Partners : Shri Mangru Marandi & Shri Ekalavya Kumar), Village : Hethli Kanhai, Circle : Tisri, Distt.: Giridih, Jharkhand (1.35 Ha).

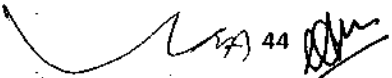

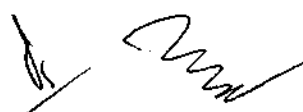
(Proposal no. : SIA/JH/MIN/428000/2023)

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 39060 cum/annum or 105462 TPA

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

This is a new project which has been taken for appraisal on 22.05.2023.


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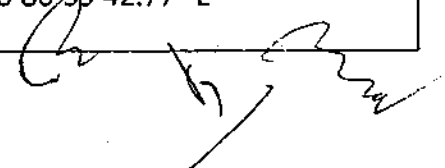
Project and Location Details :

Sl	Parameter	Details	
1	Project Name	Hethli Kanhai Stone Deposit	
2	Lessee:	M/s Ekalvaya Kumar Partner: (1) Sri Mangru Marandi (2) Sri Ekalavya Kumar	
3	Lease Address	Village – Hethli Kanhai, Circle- Tisri, District – Giridih, Jharkhand.	
4	Lease Area	1.35ha	Acres- 3.33Acres
5	Type of Land	Non Forest – Raiyati Land	
6	Project Cost	Rs. 40 Lakhs	
7	EMP Budget	Capital: 3.61 Lakhs	Recurring: 4.27 Lakh / year
8	New or Expansion	New	
9	Mineable Reserves	cum.: 388480.0 cum	Tonnes: 1048896.0tons
10	Mine Life	10 years	
11	Man power	20	
12	Water Requirement	5.55 KLD(Drinking: 0.20 KLD, Dust Suppression: 2.93 KLD, Plantation: 2.42 KLD)	
13	Water Source	From Nearby villages by tankers	
14	DG Set / power	200 KVA	
15	Crusher	No crusher	
16	Nearest Water Body	Bagjobra Nadi, approx. 1.0 km towards South direction of mine site.	
17	Nearest Habitation	Hethli Kanhai, at approx 0.50 km towards SE direction.	
18	Nearest Rail Station	Dhanwar Railway station, approx. 12.2 km towards SE direction.	
19	Nearest Air Port	Birsa Munda International Airport, approx. 152 km towards SW direction.	
20	Nearest Forest	Dhansoti PF - Approx. 1.5 km towards North direction of mine site. Upraili Kanhai PF- Approx. 2.2 km towards south direction of mine site.	
21	Road & Highways	SH-13, Approx. 6.09 km. in South direction.	

CO-ORDINATES

1	Latitude	From 24°31'30.85" N	To 24°31'35.28" N
2	Longitude	From 86°55'36.12" E	To 86°55'42.77" E

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LAND DETAILS :

Khata No.	Plot No.
04	276, 277, 278, 279, 282, 283, 284, 285 & 142 (P)
19	281 (P)
22	207 (P), 208 (P), 270 (P), 271, 272, 273, 274, 210, 328, 327 & 329

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Giridih vide letter no. 370/M, dated 08.04.2023.
2	CO	:	The CO, Tisri vide letter no. : 116, dated 06.03.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in Khatiyani.
3	DMO	:	DMO, Giridih vide memo no. 379/M, dated 10.04.2023 certified that 01 other LoI (1.64 Acre) has been issued within 500 m radius from proposed project site.
4	DFO Wildlife	:	DFO, Wildlife Hazaribag vide letter no. : 619, dated 25.03.2023 certified that the proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Giridih East Forest Division vide letter no. : 941, dated 06.03.2023 certified that the distance of notified forest is 255 m from proposed project site.
6	DSR	:	The DC - cum - District Magistrate, Giridih vide letter no. 431/M, dated 25.04.2023 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 15.02.2023.
8	Mine Plan Approval	:	DMO, Koderma vide letter no. 765, dated 15.04.2023.

Working Details

1	Mining Method	:	Opencast other than fully mechanized (OTFM) Method
2	Quarry Area	:	0.563ha. Or 1.391Acres
			Life of Mine - 10 Years

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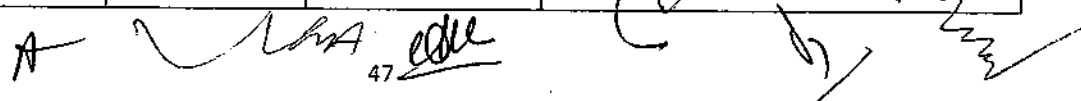
3	Waste Generation	:	2736.0 cum or 7387.2tons
4	Stripping Ratio	:	1: 0.005
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	298AMSL to 300 AMSL
8	Ground Level Elevation	:	298 AMSL
9	Ultimate Working Depth	:	282 AMSL
10	Water Table	:	260 AMSL (15 mbgl)
11	Topography of Mine	:	Area represents flattopography
12	Explosive Requirement	:	90 kg/day
13	Diesel/Fuel requirement	:	90 litre/day

Production Details

Year	Production of stone (cum)	Production of stone (tons)	Total Waste in (cum)	Bench RL in Meters
1 st	35730	96471	1365	299 mRL – 294 mRL
2 nd	36180	97686	1371	299 mRL – 294 mRL
3 rd	37800	102060	-	299 mRL – 288 mRL
4 th	39060	105462	-	294 mRL – 288 mRL
5 th	39060	105462	-	288 mRL – 282 mRL
Total	18783	507141	2736	

Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Quarry	--	0.563	0.866
Waste Dump	--	--	-
Road	0.01	--	-
Infrastructure	--	--	-
Plantation (Greenbelt)	--	0.484 (Within Safety Zone)	0.484
Total	--	1.047	-
Balance	1.340	0.303	-
Lease Hold Area	1.350	1.35	1.35



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ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.484 ha	1210
2	Along Approach Road	0.22 km	220
3	Plantation (in Consultation with Gram Panchayat & Local Authorities)	-	100

- 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 2736 cum waste during the plan period will be generated which shall be used in making and maintenance of haul road and village road, so there is no requirement of waste dumping Plan for this mining plan period.

Water Quality Management

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





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- 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 Hethli Kanhai Stone Deposit of M/s Ekalavya Kumar (Partners : Shri Mangru Marandi & Shri Ekalavya Kumar), Village : Hethli Kanhai, Circle : Tisri, Distt.: Giridih, Jharkhand (1.35 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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10. Khesmi Alias Purana Nagar Stone Deposit of M/s Maa Chanchlani Stone Works (Partners : (i) Shri Kedar Singh (ii) Shri Kumar Gaurav (iii) Shri Mahesh Prasad Mehta), Village : Khesmi Alias Purana Nagar, Anchal : Nawalsahi, Thana : Nawalsahi, Distt.: Koderma, Jharkhand (0.838 Ha).

(Proposal no. : SIA/JH/MIN/429525/2023)

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 16667.02 cum/year or 45000.97 MT/annum

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

This is a new project which has been taken for appraisal on 22.05.2023.

Project and Location Details :

Sl	Parameter	Details
1	Project Name	: Khesmi Alias Purana Nagar Stone Deposit
2	Lessee:	: M/S Maa Chanchalani Stone Works (Partners - Sri Kedar Singh, S/o Sri Falo Singh, Sri Kumar Gaurav, S/o Sri Rameshwar Singh & Sri Mahesh Prasad Mehta, S/o Late Jagdish Prasad Mehta)
3	Lease Address	: Village – Khesmi Alias Purana Nagar,Anchal- Nawalsahi, Thana- Nawalsahi , District – Kodarma, Jharkhand
4	Lease Area	: 0.838Ha Acres- 20.7 ½ Acre
5	Type of Land	: Non Forest – Raiyati Land
6	Project Cost	: Rs. 30 Lakhs
7	EMP Budget	: Capital: 3.00 Lakhs Recurring: 3.77 Lakh / year
8	New or Expansion	: New
9	Mineable Reserves	: cum.: 167325 cum Tonnes: 451777.50 tonnes
10	Mine Life	: 10 years
11	Man power	: 17
12	Water Requirement	: 5.921~ 6.0 KLD (Drinking: 0.17 KLD, Dust Suppression: 3.375 KLD, Plantation: 2.376 KLD)
13	Water Source	: From Nearby villages by tankers
14	DG Set / power	: 200 KVA
15	Crusher	: No crusher
16	Nearest Water Body	: Arkosha Dam, Approx. 6.3 km towards SE direction of mine site.
17	Nearest Habitation	: Khesmi Alias Purana Nagar approx.1.5 km towards NW direction.
18	Nearest Rail Station	: Nawadih Railway station, approx. 1.8km towards NE direction.
19	Nearest Air Port	: Birsa Munda Airport, approx. 131.80 km towards SW direction.
20	Nearest Forest	: Debipur PF 3.8 Km in N direction Chilotanr PF 3.9 Km in ENE direction

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		Bahadurpur PF 3.1 Km in ESE direction Dardahi PF 3.7 Km in SE direction Medwa PF 3.2 Km in SSE direction Karmantanr PF 4.1 Km in WNW direction Kaikakhandhar PF 5.10 Km in W direction
21	Road & Highways	: Markacho-Banyardih Rd Approx. 1.0 km in East direction SH-13 Approx. 5.3 km in North direction.

CO-ORDINATES

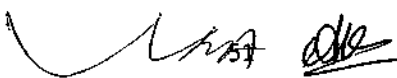
1	Latitude	From 24°24'00.56" N to	To 24°24'03.68" N
2	Longitude	From 85°47'55.37" E to	To 85°48'01.66" E

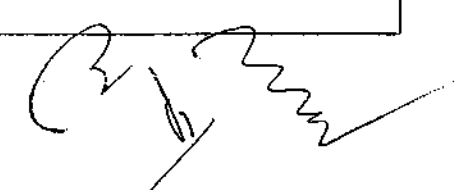
LAND DETAILS :

Khata No.	Plot No.
63	2887, 2888, 2889, 2890, 2891, 2892, 2895, 2896, 2897, 2898, 2899 & 2900

STATUTORY CLEARANCES :

1	LOI/Lease docs	: The Letter of Intent (LoI) has been issued by DMO, Koderma vide memo no. 837/M, dated 28.04.2023.
2	CO	: The CO, Markacho (Koderma) vide letter no. : 154, dated 23.03.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar & Register II.
3	DMO	: DMO, Koderma vide memo no. 928/M, dated 11.05.2023 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wildlife	: DFO, Wildlife Hazaribag vide letter no. : 829, dated 26.04.2023 certified that the proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.
5	DFO Forest Distance	: DFO, Koderma Forest Division vide letter no. : 1228, dated 27.03.2023 certified that the distance of notified forest is 405 m from proposed project site.

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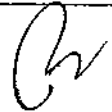
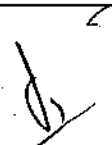
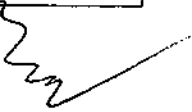
6	DSR	:	The DC-cum-District Magistrate, Koderma vide letter no. 955/M, dated 15.05.2023 has informed that this project is part of District Survey Report (DSR) of Koderma district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	Gram Sabha conducted on 17.04.2023.
8	Mine Plan Approval	:	DMO, Koderma vide letter no. 942, dated 12.05.2023.

Working Details

1	Mining Method	:	Opencast semi mechanized method
2	Quarry Area	:	0.838Ha /20.7Acre
			Life of Mine – 10 Years
3	Waste Generation	:	9845.65cum
			26583.25 tons
4	Stripping Ratio	:	1: 0.02
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	380AMSL to 376 AMSL
8	Ground Level Elevation	:	370 AMSL
9	Ultimate Working Depth	:	360 AMSL
10	Water Table	:	up to 350mRL (20mbgl)
11	Topography of Mine	:	The lease area represents a small hillock
12	Explosive Requirement	:	70kg/day
13	Diesel/Fuel requirement	:	70 litre/day

Production Details

Year	Production of stone (cum)	Production of stone (tons)	Total Waste in (cum)	Bench RL in Meters
1 st	16667.02	45000.97	5959.13	378 mRL – 378 mRL
2 nd	16667.02	45000.97	859.13	372 mRL – 372 mRL
3 rd	16667.02	45000.97	859.13	366 mRL – 372 mRL
4 th	16667.02	45000.97	859.13	360 mRL – 366 mRL
5 th	16667.02	45000.97	1309.13	360 mRL – 378 mRL
Total	83335.1	225004.85	9845.65	

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Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Quarry	-	0.348	0.463 (water reservoir)
Road	-	0.006	-
Waste Dump	-	0.087	-
S.Z. Plantation (Greenbelt)	-	0.375 (Within Safety Zone)	0.375 (plantation)
Total	-	0.816	0.838
Balance	0.838	0.022	-
Lease Hold Area	0.838	0.838	0.838

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.375ha	938
2	Along Approach Road	250 m	250

- 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.

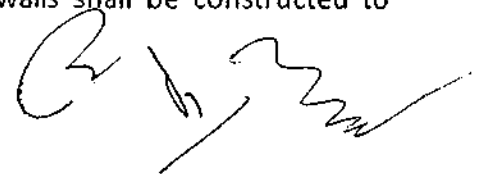
Solid Waste Management

Total 9845.65cum or 26583.2tons 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

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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 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.

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- 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 Khesmi Alias Purana Nagar Stone Deposit of M/s Maa Chanchlani Stone Works (Partners : (i) Shri Kedar Singh (ii) Shri Kumar Gaurav (iii) Shri Mahesh Prasad Mehta), Village : Khesmi Alias Purana Nagar, Anchal : Nawalsahi, Thana : Nawalsahi, Distt.: Koderma, Jharkhand (0.838 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

11. Nawadih Stone Deposit of M/s Shiv Stone Mining (Partners : (i) Shri Santosh Mehta (ii) Shri Manoj Kumar (iii) Shri Satyanand Sharma (iv) Shri Sonu Sagar), Village : Nawadih, Anchal : Markacho, Thana : Markacho, Distt.: Koderma, Jharkhand (1.07 Ha).

(Proposal no. : SIA/JH/MIN/429434/2023)

Project Category: B2 – Application for Environment Clearance.

EC Application for: Proposed Capacity- 11333.69 cu.m/annum or 30600.96 TPA.

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

This is a new project which has been taken for appraisal on 22.05.2023.

Project and Location Details :

Sl	Parameter	Details	
1	Project Name	: Nawadih Stone Deposit	
2	Lessee:	: M/S Shiv Stone Mining (Partners - Sri Santosh Mehta, Sri Manoj Kumar, Satyanand Sharma & Sri Sonu Sagar)	
3	Lease Address	: Village – Nawadih, Anchal- Markacho, Thana- Markacho, District- Kodarma, Jharkhand	
4	Lease Area	: 1.074 Ha	Acres- 2.65 ½ Acre
5	Type of Land	: Non Forest – Raiyati Land	
6	Project Cost	: Rs. 30 Lakhs	
7	EMP Budget	: Capital: 4.075 Lakhs	Recurring: 4.27 Lakh / year
8	New or Expansion	: New	
9	Mineable Reserves	: cum.: 113396.75 cum	Tonnes: 306171.23tons
10	Mine Life	: 10 years	

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11	Man power	:	23
12	Water Requirement	:	7.9 ~ 8.0 KLD (Drinking: 0.23 KLD, Dust Suppression: 4.21 KLD, Plantation: 3.5 KLD)
13	Water Source	:	From Nearby villages by tankers
14	DG Set / power	:	200 KVA
15	Crusher	:	No crusher
16	Nearest Water Body	:	Approx. 4.5 km towards NW direction of mine site Approx. 5.3 km towards SE direction of mine site.
17	Nearest Habitation	:	Nawadih approx. 0.5 km towards North direction.
18	Nearest Rail Station	:	Nawadih Railway station, approx. 2.0 km towards, NE direction.
19	Nearest Air Port	:	Birsa Munda Airport, approx. 130 km towards SSW direction.
20	Nearest Forest	:	Bhadurpur PF Approx. 1.0 km towards East direction of mine site Dardahi PF Approx. 2.0 km towards SE direction of mine site. Karmatanr PF Approx. 4.5 km towards NW direction of mine site. Medwa PF Approx. 2.5 km towards south direction of mine site. Open jungle Approx. 4.0 km towards NE direction of mine site
21	Road & Highways	:	NH - 19, Approx. 0.90 km in North direction.

CO-ORDINATES

1	Latitude	From 24°23'35.8950" N	To 24°23'42.1525" N
2	Longitude	From 85°48'17.8543" E	To 85°48'25.1525" E

LAND DETAILS :




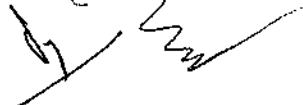
Khata No.	Plot No.
63	1388
52	1389 (P)
57	1390 (P)
76	1421 (P), 1602, 1599, 1419 (P) & 1420
61	1422 (P)

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70	1428 (P)
27	1429 (P)
16	1430
45	1662
73	1661
80	1659, 1660 & 1657
74	1603
77	1600 (P)
35	1574
36	1658
8	1391 (P)

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Koderma vide memo no. 839/M, dated 28.04.2023.
2	CO	:	The CO, Markacho (Koderma) vide letter no. : 155, dated 23.03.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Koderma vide memo no. 926/M, dated 11.05.2023 certified that 01 other mining lease area (3.28 ^{1/4} Acre) exists within 500 m radius from proposed project site.
4	DFO Wildlife	:	DFO, Wildlife Hazaribag vide letter no. : 832, dated 26.04.2023 certified that the proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Koderma Forest Division vide letter no. : 1336, dated 03.04.2023 certified that the distance of notified forest is 335 m from proposed project site.
6	DSR	:	The DC-cum-District Magistrate, Koderma vide letter no. 955/M, dated 15.05.2023 has informed that this project is part of District Survey Report (DSR) of Koderma district and accordingly necessary action with regard to Environmental Clearance can be taken.

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7	Gram Sabha	:	Gram Sabha conducted on 07.04.2023.
8	Mine Plan Approval	:	DMO, Koderma vide letter no. 944, dated 12.05.2023.

Working Details



1	Mining Method	:	Opencast semi mechanized method
2	Quarry Area	:	1.074 Ha /2.65 ½ Acre
3	Waste Generation	:	3826.9 cum or 10332.74tons
4	Stripping Ratio	:	1: 0.05
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	380AMSL to 372 AMSL
8	Ground Level Elevation	:	370 AMSL
9	Ultimate Working Depth	:	365 AMSL
10	Water Table	:	up to 350mRL (20mbgl)
11	Topography of Mine	:	The lease area represents a small hillock
12	Explosive Requirement	:	90 kg/day
13	Diesel/Fuel requirement	:	90 litre/day

Production Details

Year	Production of stone (cum)	Production of stone (tons)	Total Waste in (cum)	Bench RL in Meters
1 st	11325.33	30578.39	2927.07	371 mRL – 371 mRL
2 nd	11283.15	30464.51	2924.85	371 mRL – 371 mRL
3 rd	11283.15	30464.51	1481.85	365 mRL – 371 mRL
4 th	11331.6	30595.32	596.46	365 mRL – 365 mRL
5 th	11333.69	30600.96	2402.51	365 mRL – 371 mRL
Total	56557.01	152706.69	10332.74	

Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha)
Quarry	00	0.384	0.507

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Road	00	0.009	0.0
Waste Dump	00	0.114	0.0
S.Z. Plantation (Greenbelt)	00	0.567 (Within Safety Zone)	0.567
Total	-	1.074	1.074
Balance	1.074	0.0	-
Lease Hold Area	1.074	1.074	1.074

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.567 ha	1420
2	Along Approach Road	230 m	230
3	Aganbadi	-	100

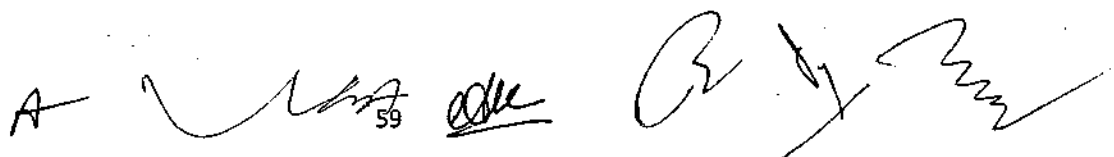
- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality 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 56557.01 cum or 10332.74 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 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 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.

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- 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 Nawadih Stone Deposit of M/s Shiv Stone Mining (Partners : (i) Shri Santosh Mehta (ii) Shri Manoj Kumar (iii) Shri Satyanand Sharma (iv) Shri Sonu Sagar), Village : Nawadih, Anchal : Markacho, Thana : Markacho, Distt.: Koderma, Jharkhand (1.07 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

12. Dhab Salaunia Stone Deposit of M/s Shree Shantinath Minerals (Partners : (i) Shri Ishan Jain (ii) Shri Manish Kumar Gangwa), Village : Dhab Salaunia, Thana : Chouparan, Distt.: Hazaribag, Jharkhand (1.28 Ha).

(Proposal no. : SIA/JH/MIN/429286/2023)

Project Category: B2 – Application for Environment Clearance



EC Application for: Proposed Capacity- 38016.00 cum/annum or 102643.20 TPA

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

This is a new project which has been taken for appraisal on 22.05.2023.

Project and Location Details :




Sl	Parameter	Details	
1	Project Name	: Dhab Salaunia Stone Deposit	
2	Lessee:	: M/S Shree Shantinath Minerals (Partners - Sri Ishan Jain and Sri Manish Kumar Gangwa)	
3	Lease Address	: Village – Dhab Salaunia, Thana.- Chouparan, District – Hazaribag, Jharkhand	
4	Lease Area	: 1.28 Ha	Acres- 3.17 Acre
5	Type of Land	: Non Forest – Raiyati Land	
6	Project Cost	: Rs. 25 Lakhs	
7	EMP Budget	: Capital: 3.975 Lakhs	Recurring: 4.27 Lakh / year
8	New or Expansion	: New	
9	Mineable Reserves	: cum.: 380160 cum	Tonnes: 102643.20 MT

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10	Mine Life	:	10 years
11	Man power	:	20
12	Water Requirement	:	7.82KLD (Drinking: 0.20 KLD, Dust Suppression: 4.47 KLD, Plantation: 3.15KLD)
13	Water Source	:	From Nearby villages by tankers
14	DG Set / power	:	200 KVA
15	Crusher	:	No crusher
16	Nearest Water Body	:	Margoja Nadi Approx. 4.20 km towards WNW direction of mine site Tilaiya Dam Reservoir Approx. 1.00 km towards S direction of mine site
17	Nearest Habitation	:	Khandi Village 400 m in East direction
18	Nearest Rail Station	:	Pipradih Railway station, approx. 8.26 km towards ENE direction.
19	Nearest Air Port	:	Birsa Munda Airport, approx. 117 km towards South direction.
20	Nearest Forest	:	Open Scrub Approx. 0.333 km towards WNW direction of mine site Protected Forest Fairly Dense jungle Mainly Sal Approx 9.50 km towards NW direction of mine site. Protected Forest Fairly Dense jungle Mainly Eucalyptus Approx 9.30 km towards North direction of mine site. Protected Forest Fairly Dense jungle Mainly Sal Approx. 4.0 km towards SE direction of mine site Margoja Nadi Approx. 4.20 km towards WNW direction of mine site Tilaiya Dam Reservoir Approx. 1.00 km towards S direction of mine site
21	Road & Highways	:	Approx. 0.22 km. in NW direction. NH- 20, Approx. 6.50 km in ESE direction.

CO-ORDINATES

1	Latitude	From 24°22'09.57" N	To 24°22'13.91" N
2	Longitude	From 85°24'47.34" E	To 85°24'55.03" E

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LAND DETAILS :

Khata No.	Plot No.
05	353 (P)
10	352
13	269
29	354
31	267
41	268

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (Lol) has been issued by DMO, Hazaribag vide memo no. 562/Khanan, dated 19.04.2023.
2	CO	:	The CO, Chouparan (Hazaribag) vide letter no. : 1384, dated 09.12.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatyan & Register II.
3	DMO	:	DMO, Hazaribag vide memo no. 580/Khanan, dated 21.04.2023 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wildlife	:	DFO, Wildlife Hazaribag vide letter no. : 2546, dated 19.12.2022 certified that the proposed project site is outside Eco Sensitive Zone of Gautambudha Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Hazaribag West Division vide letter no. : 4108, dated 26.11.2022 certified that the distance of notified and demarcated forest is 310 m from proposed project site.
6	DSR	:	The DC, Hazaribag vide letter no. 659/Khanan, dated 04.05.2023 has informed that this project is part of District Survey Report (DSR) of Hazaribag district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	Gram Sabha conducted on 17.12.2022.
8	Mine Plan Approval	:	DMO, Koderma vide letter no. 869, dated 02.05.2023.

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Working Details

1	Mining Method	:	Opencast semi mechanized method	
2	Quarry Area	:	0.738 Ha	Life of Mine – 10 Years
3	Waste Generation	:	3192.00cum	8618.4tons
4	Stripping Ratio	:	1:0.017	
5	Working Days	:	300	
6	Benches: size & No	:	6m to 6m	
7	Elevation of Mine	:	380AMSL to 376 AMSL	
8	Ground Level Elevation	:	340 AMSL	
9	Ultimate Working Depth	:	350 AMSL	
10	Water Table	:	up to 340mRL (15mbgl)	
11	Topography of Mine	:	The lease area represents a small hillock	
12	Explosive Requirement	:	70kg/day	
13	Diesel/Fuel requirement	:	70 litre/day	

Production Details

Year	Production of stone (cum)	Production of stone (tons)	Total Waste in (cum)	Bench RL in Meters
1 st	34560.00	93312.00	1983.00	378 mRL – 374 mRL
2 nd	37800.00	102060.00	1209.00	374 mRL – 368mRL
3 rd	38016.00	102643.20	-	374 mRL – 368mRL
4 th	38016.00	102643.20	-	374 mRL – 368mRL
5 th	38016.00	102643.20	-	368 mRL – 362 mRL
Total	186408.00	503301.60	3192.00	

Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Quarry	-	0.738	0.738 ha (water reservoir)
Road	0.006	0.003	0.003

Waste Dump	-	-	-
Safety Zone (Plantation)	-	0.498	0.498 (plantation)
Total	0.006	1.239	1.239
Balance Area	1.274	0.041	0.041
Lease Hold Area	1.28	1.28	1.28

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.498ha	1245
2	Along Approach Road	330 m	330



- 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 3192.00cum or 8618.4 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 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 goodsanitation system shall be made available.

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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 Dhab Salaunia Stone Deposit of M/s Shree Shantinath Minerals (Partners : (i) Shri Ishan Jain (ii) Shri Manish Kumar Gangwa), Village : Dhab Salaunia, Thana : Chouparan, Distt.: Hazaribag, Jharkhand (1.28 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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13. Gasedag Stone Deposit of M/s M. G. Contractor Pvt. Ltd. (Prop. : Shri Asim Kumar), Village : Gasedag, Thana : Ranka, Anchal : Ranka, Distt.: Garhwa, Jharkhand (2.833 Ha).

(Proposal no. : SIA/JH/MIN/429360/2023)

Project Category: B2 – Application for Environment Clearance.

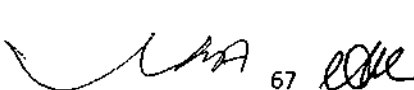

EC Application for: Proposed Capacity- 88998.97 cum/annum or 240297.23 TPA Stone.

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

This is a new project which has been taken for appraisal on 22.05.2023.

Project and Location Details :

S. No.	Parameter		Details
1	Project Name	:	Gasedag Stone Deposit
2	Lessee:	:	Sri Asim Kumar M/s M.G. Contractor Pvt. Ltd
3	Lease Address	:	Village –Gasedag, Thana- Ranka, Anchal- Ranka, Garhwa, Jharkhand
4	Lease Area	:	2.833ha Acres- 7.0Acres
5	Type of Land	:	Non Forest – Raiyati Land
6	Project Cost	:	Rs. 70 Lakhs
7	EMP Budget	:	Capital: 4.73 Lakhs Recurring: 4.27 Lakhs / year
8	New or Expansion	:	New
9	Mineable Reserves	:	cum.: 890063.44 cum Tonnes: 2403171.3 tons
10	Mine Life	:	5 years
11	Man power	:	30
12	Water Requirement	:	9.10KLD (Drinking: 0.30 KLD, Dust Suppression: 4.04 KLD, Plantation: 4.68 KLD)
13	Water Source	:	From Nearby villages by tankers
14	DG Set / power	:	500 KVA
15	Crusher	:	With Crusher
16	Nearest Water Body	:	HathuNadi, Approx. 1.10 km towards E direction of mine site
17	Nearest Habitation	:	Pindra, at approx 0.750 km
18	Nearest Rail Station	:	Garhwa Railway station, approx. 30.0 km towards N direction.
19	Nearest Air Port	:	Birsa Munda International Airport, approx. 165 km towards SE direction.
20	Nearest Forest	:	Kasmar PF- Approx. 4.0 km towards SE direction of mine site. Siswa PF - Approx. 4.0 km towards S direction of mine site. Bahahara PF- Approx. 3.0 km towards SW direction of mine site.

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			Korwa PF- Approx. 3.50 km towards NE direction of mine site.
21	Road & Highways	:	Ranka-Ramkanda Road, Approx. 0.85km in East direction. NH-343, Approx. 8.0 km in NW direction

CO-ORDINATES

1	Latitude	From 23°54'29.7880" N	To 23°54'36.8064" N
2	Longitude	From 83°49'40.9240" E	To 83°49'51.6085" E

LAND DETAILS :

Khata No.	Plot No.
Old- 121	Old - 01
New - 144	New - 43(P) & 44(P)

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued DMO, Garhwa vide letter no. 487/M, dated 18.04.2023.
2	CO	:	The CO, Ranka vide letter no. : 79, dated 22.02.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Garhwa vide memo no. 607/M, dated 11.05.2023 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	Deputy Director, Palamu Tiger Project, North Division, Medininagar vide letter no. : 255, dated 01.03.2023 certified that the proposed project site is outside Eco Sensitive Zone of Palamu Wildlife Sanctuary, Betla National Park and Mahuadani Wolf Sanctuary.
5	DFO Forest Distance	:	DFO, Garhwa South Forest Division vide letter no. : 448, dated 22.02.2023 certified that the reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC – cum – District Magistrate, Garhwa vide letter no. 629/M, dated 16.05.2023 has informed that this project is part of District Survey Report (DSR) of Garhwa district and accordingly necessary



			action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Ranka vide letter no. 139, dated 20.02.2023 informed that Gram Sabha conducted on 17.02.2023.
8	Mine Plan Approval	:	AMO, Garhwa Vide letter no. 538, dated 28.04.2023.

Working Details

1	Mining Method	:	Opencast semi mechanized Method
2	Quarry Area	:	1.996ha. Life of Mine – 10 Years
3	Waste Generation	:	9077.62cum or 24509.57 tons
4	Stripping Ratio	:	1: 0.02
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	350AMSL to 367 AMSL
8	Ground Level Elevation	:	340 AMSL
9	Ultimate Working Depth	:	330 AMSL
10	Water Table	:	320AMSL (20mbgl)
11	Topography of Mine	:	Area represents small hillocktopography
12	Explosive Requirement	:	90kg/day
13	Diesel/Fuel requirement	:	110 litre/day

Production Details

Year	Production of stone (cum)	Production of stone (tons)	Total Waste in (cum)	Bench RL in Meters
1 st	88987.91	240267.38	1816.08	360 mRL – 348mRL
2 nd	88998.97	240297.23	1816.31	360 mRL – 348mRL
3 rd	88895.80	240018.66	1814.20	348mRL – 342 mRL
4 th	88932.64	240118.15	1814.95	348 mRL – 342mRL
5 th	88987.91	240267.38	1816.08	342 mRL – 336mRL
Total	444803.23	1200968.81	9077.62	

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Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Quarry	--	1.461	1.996 (1.996 ha will be converted in to water reservoir)
Road	--	0.003	Nil (comes under quarry)
Waste Dump	--	0.121	Nil (waste dump to be removed and backfilled)
Crusher	-	0.411	0.0
S Z Plantation (Greenbelt)	--	0.784	0.784
Total	-	2.780	2.780
Unused area	2.833	0.053	0.053
Lease Hold Area	2.833	2.833	2.833

ENVIRONMENT MANAGEMENT






Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.784 ha	1960
2	Along Approach Road	0.020km	20

- 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 has been calculated that total 9077.62 cum in-situ waste shall be generated during this plan period. The waste generated during the plan period i.e. 4538.81cum (In situ) shall be utilized for approach & Haul road Maintenance and 4548.81 cum in situ, 5673.51 cum loose and 4822.49 cum compact shall be proposed to dumped in the north eastern part of the applied lease area The maximum height of dump shall be 6.20m and it will cover 0.121 ha area.

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Water Quality Management

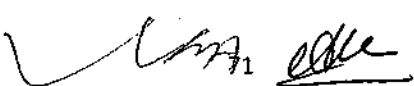

- Mining is planned to above the ground water table. In case any intersection is likely, mining activities will be stopped 2m above the Ground Water Table.
- The rain water during rainy season will be collected in a pit and shall be use for dust suppression and plantation.Excess water, if any shall be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

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- 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 Gasedag Stone Deposit of M/s M. G. Contractor Pvt. Ltd. (Prop. : Shri Asim Kumar), Village : Gasedag, Thana : Ranka, Anchal : Ranka, Distt.: Garhwa, Jharkhand (2.833 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

14. Pindra Stone Deposit of M/s M. G. Contractor Pvt. Ltd. (Prop. : Shri Asim Kumar), Village : Pindra, Thana : Ranka, Anchal : Ranka, Distt.: Garhwa, Jharkhand (2.821 Ha).

(Proposal no. : SIA/JH/MIN/429420/2023)

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 140639.80 cum/annum or 379727.46 TPA Stone

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

This is a new project which has been taken for appraisal on 22.05.2023.

Project and Location Details :

S. No.	Parameter	:	Details
1	Project Name	:	Pindra Stone Deposit
2	Lessee:	:	Sri Asim Kumar M/s M.G. Contractor Pvt. Ltd
3	Lease Address	:	Village –Pindra, Thana- Ranka, Anchal- Ranka, Distt. - Garhwa, Jharkhand
4	Lease Area	:	2.821 ha Acres- 6.97Acres
5	Type of Land	:	Non Forest – Raiyati Land
6	Project Cost	:	Rs. 70 Lakhs
7	EMP Budget	:	Capital: 4.114 Lakhs Recurring: 4.27 Lakhs / year
8	New or Expansion	:	New
9	Mineable Reserves	:	cum.: 702677.64 cum Tonnes: 1897229.63 tons

(Handwritten signatures and initials are present below the table)

10	Mine Life	:	5 years
11	Man power	:	27
12	Water Requirement	:	8.399 ~ 8.4 KLD (Drinking: 0.27 KLD, Dust Suppression: 4.265 KLD, Plantation: 3.864 KLD)
13	Water Source	:	From Nearby villages by tankers
14	DG Set / power	:	500 KVA
15	Crusher	:	With crusher
16	Nearest Water Body	:	Hathu Nadi, Approx. 2.50 km towards E direction of mine site
17	Nearest Habitation	:	Pindra, at approx 0.750 km
18	Nearest Rail Station	:	Garhwa Railway station, approx. 29 km towards N direction.
19	Nearest Air Port	:	Birsa Munda International Airport, approx. 167 km towards SE direction.
20	Nearest Forest	:	Kasmar PF- Approx. 4.0 km towards W direction of mine site. Jolanca PF- Approx. 1.50 km towards SW direction of mine site. Bahahara PF- Approx. 3.0 km towards S direction of mine site. Kcrwa PF- Approx. 3.50 km towards SW direction of mine site.
21	Road & Highways	:	Ranka-Ramkanda Road, Approx. 2.0km in East direction. NH-343, Approx. 6.8 km in NW direction

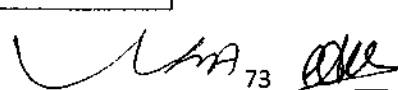
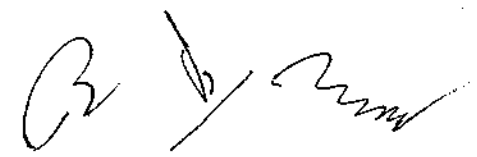
CO-ORDINATES

1	Latitude	From 23°54'09.2070" N	To 23°54'16.3588" N
2	Longitude	From 83°48'46.2290" E	To 83°48'54.0401" E

LAND DETAILS :

<u>Old Khata No.</u>	<u>Old Plot No.</u>
06	24, 25
25	26
07	25, 26

<u>New Khata No.</u>	<u>New Plot No.</u>
18	92, 93(P), 96, 95
36	101
29	97, 150

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STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (Loi) has been issued by DMO, Garhwa vide letter no. 584/M, dated 08.05.2023.
2	CO	:	The CO, Ranka vide letter no. : 123, dated 15.03.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar & Register II.
3	DMO	:	DMO, Garhwa vide memo no. 613/M, dated 13.05.2023 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	Deputy Director, Palamu Tiger Project, North Division, Medininagar vide letter no. : 382, dated 25.03.2023 certified that the proposed project site is outside Eco Sensitive Zone of Palamu Wildlife Sanctuary, Betla National Park and Mahuadarr Wolf Sanctuary..
5	DFO Forest Distance	:	DFO, Garhwa South Forest Division vide letter no. : 274, dated 22.03.2023 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC – cum – District Magistrate, Garhwa vide letter no. 629/M, dated 16.05.2023 has informed that this project is part of District Survey Report (DSR) of Garhwa district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Ranka vide letter no. 308, dated 31.03.2023 informed that Gram Sabha conducted on 06.03.2023.
8	Mine Plan Approval	:	AMO, Garhwa vide letter no. 606, dated 11.05.2023.

Working Details

1	Mining Method	:	Opencast semi mechanized Method
2	Quarry Area	:	2.088ha. Life of Mine – 5 Years
3	Waste Generation	:	14334.16 cum or 38702.23 tons
4	Stripping Ratio	:	1: 0.02
5	Working Days	:	300
6	Bench: size & No	:	6m to 6m
7	Elevation of Mine	:	375AMSL to 394 AMSL
8	Ground Level	:	370AMSL

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DMS

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DMS


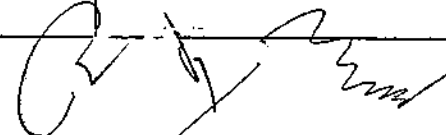
	Elevation		
9	Ultimate Working Depth	:	360 AMSL
10	Water Table	:	350AMSL (20mbgl)
11	Topography of Mine	:	Area represents small hillocktopography
12	Explosive Requirement	:	90kg/day
13	Diesel/Fuel requirement	:	110 litre/day

Production Details

Year	Production of stone (cum)	Production of stone (tons)	Total Waste in (cum)	Bench RL in Meters
1 st	140515.34	379391.42	2867.66	390 mRL – 366 mRL
2 nd	140639.80	379727.46	2870.20	384 mRL – 372 mRL
3 rd	140355.60	378960.12	2864.40	384 mRL – 372 mRL
4 th	140355.60	378960.12	2864.40	372 mRL – 366 mRL
5 th	140507.50	379370.25	2867.50	366 mRL – 360 mRL
Total	702373.84	1896409.37	14334.16	

Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Quarry	--	2.088	2.088 (2.088 ha area shall be left as water reservoir)
Road	--	--	Nil (comes under quarry)
Waste Dump	--	--	Nil (waste dump to be removed and backfilled)
Crusher	-	--	Nil
S Z Plantation (Greenbelt)	--	0.733 (Within Safety Zone)	0.733

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Total	-	2.821	2.821
Unused area	2.821	0.00	-
Lease Hold Area	2.821	2.821	2.821

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.733 ha	1832
2	Along Approach Road	0.100 km	100

- 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 has been calculated that total 14334.16 cum in situ, 17917.7cum loose and 15230.05 cum compact waste shall be generated during this plan period. The waste generated during the plan period i.e. during the first and second year of plan period the generated waste shall be temporarily dumped in southern part of lease area with maximum height of 2.84m. Third year onwards the generated waste and previously dumped waste material shall be used for backfilling of exhausted quarry in northern part of lease area and it will cover 0.231 ha 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 goodsanitation system shall be made available.

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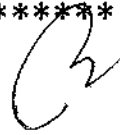
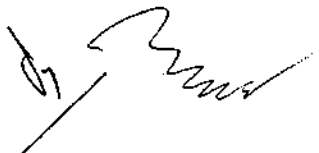
Air Quality Management

- 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 Pindra Stone Deposit of M/s M. G. Contractor Pvt. Ltd. (Prop. : Shri Asim Kumar), Village : Pindra, Thana : Ranka, Anchal : Ranka, Distt.: Garhwa, Jharkhand (2.821 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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15. Markacho Stone Deposit of M/s Maa Durga Stone Chips (Partners : (i) Shri Devendra Mehta (ii) Shri Santosh Mehta (iii) Shri Basudev Mehta), Village : Markacho, Anchal : Markacho, Thana : Markacho, Distt.: Koderma, Jharkhand (2.986 Ha).

(Proposal no. : SIA/JH/MIN/429519/2023)

Project Category: B2 – Application for Environment Clearance



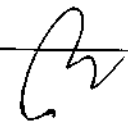

EC Application for: Proposed Capacity- 70873.71 cu.m/annum or 191359.00 TPA

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

This is a new project which has been taken for appraisal on 22.05.2023.

Project and Location Details :

Sl	Parameter	Details	
1	Project Name	: Markacho Stone Deposit	
2	Lessee:	: M/s Maa Durga Stone Chips, (Partners- Sri Devendra Mehta, Sri Santosh Mehta & Sri Basudev Mehta)	
3	Lease Address	: Village- Markacho, Anchal- Markacho, Thana- Markacho , District – Kodarma, Jharkhand.	
4	Lease Area	: 2.986ha	Acres- 7.38Acres
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	: cum.: 708549.90 cum	Tonnes: 1913084.74tons
10	Mine Life	: 10 years	
11	Man power	: 28	
12	Water Requirement	: 10.17 ~ 10.20KLD(Drinking: 0.28 KLD, Dust Suppression: 4.89 KLD, Plantation: 5.0 KLD)	
13	Water Source	: From Nearby villages by tankers	
14	DG Set / power	: 500 KVA	
15	Crusher	: No crusher	
16	Nearest Water Body	: Panchkara Nadi, approx. 0.3 km towards N direction of mine site.	
17	Nearest Habitation	: Markacho, approx. 1.5 km towards SW direction.	
18	Nearest Rail Station	: Nawadih Railway station, approx. 8.5 km towards NW direction.	
19	Nearest Air Port	: Birsa Munda Airport, approx. 126.50 km towards SSW direction.	
20	Nearest Forest	: Mahtariya PF- Approx. 4.5 km towards SSW direction of mine site.	

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		Panduwai PF- Approx. 4.7 km towards NW direction of mine site.
21	Road & Highways	: Markacho-Banyardih Rd, Approx. 1.0 km in West direction. SH-13, Approx. 11.0 km in North direction.

CO-ORDINATES



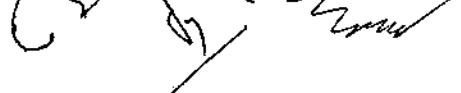
1	Latitude	From 24°20'14.1811" N	To 24°20'22.2029" N
2	Longitude	From 85°50'35.4064" E	To 85°50'44.9346" E

LAND DETAILS :

Khata No.	Plot No.
217	6685, 6686, 6665, 11533, 6684, 11549 (P), 11541, 11542, 6664, 11548 (P)
1311	6679, 6682, 11543, 11544, 11545, 11546, 11547

STATUTORY CLEARANCES :

1	LOI/Lease docs	: The Letter of Intent (LoI) has been issued by DMO, Koderma vide memo no. 841/M, dated 28.04.2023.
2	CO	: The CO, Markacho (Koderma) vide letter no. : 361, dated 21.07.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in Khatiyani.
3	DMO	: DMO, koderma vide memo no. 925/M, dated 11.05.2023 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. : 836, dated 26.04.2023 certified that the proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.
5	DFO Forest Distance	: DFO, Koderma Forest Division vide letter no. : 52, dated 03.01.2023 certified that the distance of notified forest is 350 m from proposed project site.
6	DSR	: The DC – cum – District Magistrate, Koderma vide letter no. 955/M, dated 15.05.2023 has informed that this project is part of District

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		Survey Report (DSR) of Koderma district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	: Gram Sabha conducted on 20.04.2023.
8	Mine Plan Approval	: DMO, koderma vide letter no. 943, dated 12.05.2023.

Working Details

1	Mining Method	: Opencast semi mechanized Method	
2	Quarry Area	: 2.127ha. Or 5.25Acres	Life of Mine – 10 Years
3	Waste Generation	: 39910.23 cum or 107757.621tons	
4	Stripping Ratio	: 1: 0.02	
5	Working Days	: 300	
6	Benches: size & No	: 6m to 6m	
7	Elevation of Mine	: 334AMSL to 348 AMSL	
8	Ground Level Elevation	: 334 AMSL	
9	Ultimate Working Depth	: 315 AMSL	
10	Water Table	: 305 AMSL (15 mbgl)	
11	Topography of Mine	: Area represents hillock topography	
12	Explosive Requirement	: 60kg/day	
13	Diesel/Fuel requirement	: 70 litre/day	

Production Details

Year	Production of stone (Tonnes)	Production of stone (tons)	Total Waste in (cum)	Bench RL in Meters
1 st	74603.00	191359.00	25006.20	339 mRL – 333 mRL
2 nd	74564.50	191257.94	3728.23	333 mRL – 333 mRL
3 rd	74466.00	191005.29	3723.30	327 mRL – 327 mRL
4 th	74466.00	191005.29	3723.30	327 mRL – 321 mRL
5 th	74584.20	191308.47	3729.21	321 mRL – 315 mRL
Total	372683.70	955936.00	39910.23	

Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Quarry	00	1.269	2.127 (0.257ha area shall be backfilled & 1.870 ha area shall be left as water reservoir)
Road	00	0.004	0.0
Waste Dump	00	0.586	0.0
S.Z. Plantation (Greenbelt)	00	0.859 (Within Safety Zone)	0.859
Total	-	2.718	2.986
Balance	2.986	0.268	-
Lease Hold Area	2.986	2.986	2.986

ENVIRONMENT MANAGEMENT

Green Belt Development

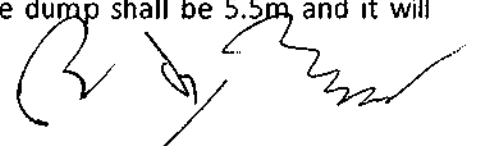
S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.859 ha	2150
2	Along Approach Road	0.10 km	100
3	Anganwadi, School, Panchayat office etc	-	250

- 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 has been calculated that total 39910.23 cum in-situ, waste shall be generated during this plan period. The 50% of waste generated during the plan period i.e. 19955.12cum (In situ) shall be utilized for approach & haul road maintenance. The rest waste material(50%) 19955.12 cum(in situ), 24943.89 cum(loose) & 21202.31 cum (compact) waste shall be temporarily dumped in north central part of the lease area, the maximum height of the dump shall be 5.5m and it will cover 0.586 ha area.

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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 becollected 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 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.

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- 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 Markacho Stone Deposit of M/s Maa Durga Stone Chips (Partners : (i) Shri Devendra Mehta (ii) Shri Santosh Mehta (iii) Shri Basudev Mehta), Village : Markacho, Anchal : Markacho, Thana : Markacho, Distt.: Koderma, Jharkhand (2.986 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

16. Kharkhar Stone Deposit of Shri Mahavir Yadav, Village : Kharkhar, Anchal : Domchanch, Thana : Domchanch, Distt.: Koderma, Jharkhand (0.437 Ha).

(Proposal no. : SIA/JH/MIN/ 429626/2023)

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 3600.00 cu.m/annum or 9720.00 TPA

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

This is a new project which has been taken for appraisal on 22.05.2023.

Project and Location Details :

Sl	Parameter	Details	
1	Project Name	: Kharkhar Stone Deposit	
2	Lessee:	: Sri Mahavir Yadav	
3	Lease Address	: Village- Kharkhar, Anchal- Domchanch, Thana- Domchanch , District – Kodarma, Jharkhand.	
4	Lease Area	: 0.437 ha	Acres- 1.08 Acres
5	Type of Land	: Non Forest – Raiyati Land	
6	Project Cost	: Rs. 20 Lakhs	
7	EMP Budget	: Capital: 3.46 Lakhs	Recurring: 3.27 Lakh / year
8	New or Expansion	: New	
9	Mineable Reserves	: cum.: 35600.00cum	Tonnes: 96120.00tons

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10	Mine Life	:	9.90 ~ 10 years
11	Man power	:	20
12	Water Requirement	:	6.48 ~ 6.50 KLD(Drinking: 0.20 KLD, Dust Suppression: 3.92 KLD, Plantation: 2.36 KLD)
13	Water Source	:	From Nearby villages by tankers
14	DG Set / power	:	200 KVA
15	Crusher	:	No crusher
16	Nearest Water Body	:	HurrahiNadi, approx. 1.5 km towards SW direction of mine site.
17	Nearest Habitation	:	Kharkhar, approx 0.50 km towards SSE direction.
18	Nearest Rail Station	:	Nawalsahi Railway station, approx. 3.0 km towards SE direction.
19	Nearest Air Port	:	Birsa Munda Airport, approx. 132.50 km towards SSW direction.
20	Nearest Forest	:	Phulwariya PF- Approx 1.5 Km in East direction of mine site. Kharauana PF- Approx 3.0 Km in South direction of mine site. Karmatanr PF - Approx 4.8 Km in SE direction of mine site.
21	Road & Highways	:	SH-13, Approx. 0.40 km in NE direction.

CO-ORDINATES

1	Latitude	From 24°26'55.80"N	To 24°26'58.55" N
2	Longitude	From 85°44'45.72" E	To 85°44'50.91" E

LAND DETAILS :

Khata No.	Plot No.
130	731
153	732
223	734

STATUTORY CLEARANCES:

1	LOI/Lease docs	:	The Letter of Intent (Loi) has been issued by DMO, Koderma vide memo no. 840/M, dated 28.04.2023.
2	CO	:	The CO, Domchanch vide letter no. : 248, dated 27.02.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar & Register II.
3	DMO	:	DMO, Koderma vide memo no. 909/M, dated 10.05.2023 certified that 4 other mining lease area (1.89 Acre, 0.64 ½ Acre, 1.07 Acre & 6.32 Acre) exists within 500 m radius from proposed project site

			and total area is 11.00 ½ Acre.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. : 953, dated 18.05.2023 certified that the proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Koderma Forest Division vide letter no. :1631, dated 21.04.2023 certified that the distance of reserved / protected forest is 380 m from proposed project site.
6	DSR	:	The DC – cum – District Magistrate, Koderma vide letter no. 955/M, dated 15.05.2023 has informed that this project is part of District Survey Report (DSR) of Koderma district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	Gram Sabha conducted on 21.04.2023.
8	Mine Plan Approval	:	DMO, Koderma vide letter no. 960, dated 16.05.2023.

Working Details

1	Mining Method	:	Opencast semi mechanized Method
2	Quarry Area	:	0.181ha. Or 0.447Acres
3	Waste Generation	:	1240.0 cum or 3348.0tons
4	Stripping Ratio	:	1: 0.002
5	Working Days	:	300
6	Benches: size & No	:	3 m to3 m
7	Elevation of Mine	:	360AMSL to 362 AMSL
8	Ground Level Elevation	:	360 AMSL
9	Ultimate Working Depth	:	348 AMSL
10	Water Table	:	335 AMSL (15 mbgl)
11	Topography of Mine	:	Area represents flat topography
12	Explosive Requirement	:	70 kg/day
13	Diesel/Fuel requirement	:	70 litre/day

Production Details :

Year	Production of stone (cum)	Production of stone (tons)	Total Waste in (cum)	Bench RL in Meters
1 st	2800.00	7560.00	1240.00	360mRL – 357mRL
2 nd	3200.00	8640.00	-	357 mRL – 354mRL

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3 rd	3600.00	9720.00	-	354mRL – 351mRL
4 th	3600.00	9720.00	-	361mRL – 357mRL
5 th	3600.00	9720.00	-	351 mRL – 348mRL
Total	16800.00	45360.00	1240.00	

Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Quarry	-	0.181	0.181 (entire area will be converted into rain water harvesting)
Road	0.008	(Comes under qry)	(Comes under qry)
S.Z. Plantation (Greenbelt)	-	0.256	0.256
Total	0.008	0.437	0.437
Balance	0.429	-	-
Lease Hold Area	0.437	0.437	0.437

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.256 ha	640
2	Along Approach Road	0.44 km	440
3	Anganwadi, School, Panchayat office etc	-	100

- 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.

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Solid Waste Management

Total 1240 cum or 3348 Tones waste generated during this Mining Plan period, so there is no requirement of waste dumping Plan for this mining plan but it will be used for village road and approach 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 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 becollected 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 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.

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 Kharkhar Stone Deposit of Shri Mahavir Yadav, Village : Kharkhar, Anchal : Domchanch, Thana : Domchanch, Distt.: Koderma, Jharkhand (0.437 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

17. Kharkhar Stone Deposit of M/s Maruti Stone Works, Village : Kharkhar, Anchal : Domchanch, Thana : Domchanch, Distt.: Koderma, Jharkhand (0.319 Ha).

(Proposal no. : SIA/JH/MIN/ 429561/2023)

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 7887.75 cum/annum or 21296.94 MT/annum

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

This is a new project which has been taken for appraisal on 22.05.2023.

Project and Location Details :

Sl	Parameter	Details
1	Project Name	: Kharkhar Stone Deposit
2	Lessee:	: M/S Maruti Stone Works , Partners- Sri Suresh Turi, S/o Late Ketar Turi, Sri Devendra Mehta, S/o Late Yadunandan Mehta & Sri Kumar Gaurav, S/o Sri Rameshwar Singh)
3	Lease Address	: Village -- Kharkhar, Anchal- Domchanch, Thana- Domchanch, District- Koderma, Jharkhand

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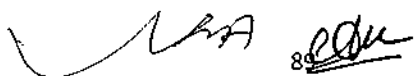
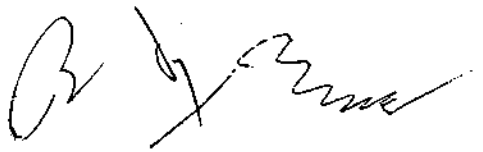
4	Lease Area	:	0.319Ha	Acres- 0.79Acre
5	Type of Land	:	Non Forest – Raiyati Land	
6	Project Cost	:	Rs. 50 Lakhs	
7	EMP Budget	:	Capital: 1.59 Lakhs	Recurring: 3.89 Lakh / year
8	New or Expansion	:	New	
9	Mineable Reserves	:	cum.: 47206.45 cum	Tonnes: 127457.42 tonnes
10	Mine Life	:	10 years	
11	Man power	:	17	
12	Water Requirement	:	2.65 ~ 3.0 KLD (Drinking: 0.17 KLD, Dust Suppression: 1.44 KLD, Plantation: 1.04KLD)	
13	Water Source	:	From Nearby villages by tankers	
14	DG Set / power	:	200 KVA	
15	Crusher	:	No crusher	
16	Nearest Water Body	:	Chando or Keso Nadi Approx 4.0 km towards SW direction of mine site. Sakti Nadi Approx. 4.5 km towards SE direction of mine site.	
17	Nearest Habitation	:	Kharkhar Village approx. 0.9 km Towards S	
18	Nearest Rail Station	:	Nawalsahi Railway station, approx. 1.7km towards SE direction.	
19	Nearest Air Port	:	Birsa Munda Airport, approx. 135.50 km towards SE direction.	
20	Nearest Forest	:	Kharuna PF4.0 Km in SW direction Debipur PF3.8 Km in SE direction Karmatanr PF4.8 Km in S direction Kailakhandhar PF4.5 Km in S direction	
21	Road & Highways	:	SH-13 Approx. 0.11 km in East direction.	

CO-ORDINATES

1	Latitude	From 24 °26' 32.0981"N	To 24 °26'35.0704" N
2	Longitude	From 85 °45' 33.914" E	To 85 ° 45'36.2099" E

LAND DETAILS:

Khata No.	Plot No.
267	2887

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STATUTORY CLEARANCES:

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Koderma vide memo no. 838/M, dated 28.04.2023.
2	CO	:	The CO, Domchanch vide letter no. : 87, dated 12.01.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar & Register II.
3	DMO	:	DMO, Koderma vide memo no. 927/M, dated 11.05.2023 certified that 03 other mining lease area (2.01 Acre, 0.61 Acre & 0.89 Acre) exists within 500 m radius from proposed project site and total area is 4.30 Acre.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. : 139, dated 21.01.2023 certified that the proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Koderma Forest Division vide letter no. : 1629, dated 21.04.2023 certified that the distance of reserved / protected forest is 270 m from proposed project site.
6	DSR	:	The DC – cum – District Magistrate, Koderma vide letter no. 955/M, dated 15.05.2023 has informed that this project is part of District Survey Report (DSR) of Koderma district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	Gram Sabha conducted on 16.01.2023.
8	Mine Plan Approval	:	DMO, Koderma vide letter no. 945, dated 12.05.2023.

Working Details

1	Mining Method	:	Opencast semi mechanized method	
2	Quarry Area	:	0.151Ha	Life of Mine – 10 Years
3	Waste Generation	:	5648.18cum	15250.086tons
4	Stripping Ratio	:	1:0.14	
5	Working Days	:	300	
6	Benches: size & No	:	6m to 6m	
7	Elevation of Mine	:	382AMSL to 375 AMSL	
8	Ground Level Elevation	:	350 AMSL	
9	Ultimate Working Depth	:	360 AMSL	
10	Water Table	:	up to 350mRL (20mbgl)	
11	Topography of Mine	:	The lease area represents a small hillock	
12	Explosive	:	70kg/day	

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	Requirement		
13	Diesel/Fuel requirement	:	70 litre/day

Production Details

Year	Production of stone (cum)	Production of stone (tons)	Total Waste in (cum)	Bench RL in Meters
1 st	7880.25	21276.68	3483.90	371 mRL – 377 mRL
2 nd	7880.25	21276.68	165.90	371 mRL – 371 mRL
3 rd	7887.75	21296.94	640.06	371 mRL – 371 mRL
4 th	7857.65	21215.68	165.43	365 mRL – 365mRL
5 th	7880.25	21276.68	1192.90	371 mRL – 365 mRL
Total	39386.15	106342.85	5648.18	

Land Use

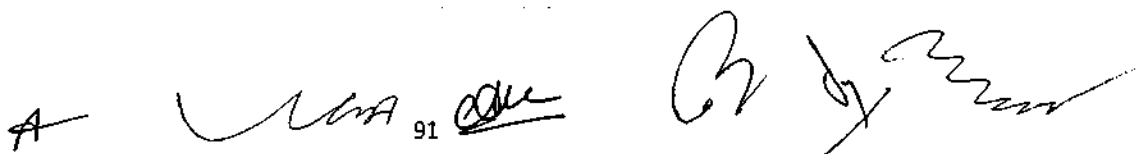
Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Quarry	00	0.149	0.151
Road	00	0.002	0.0
Waste Dump	00	0.0	0.0
S.Z. Plantation (Greenbelt)	00	0.168 (Within Safety Zone)	0.168
Total	-	0.319	0.319

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.168 ha	420
2	Along Approach Road	100 m	100

- 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 5648.18 cum or 15250.086 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 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 becollected 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.

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 Kharkhar Stone Deposit of M/s Maruti Stone Works, Village : Kharkhar, Anchal : Domchanch, Thana : Domchanch, Distt.: Koderma, Jharkhand (0.319 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

18. Shahpur Stone Deposit of M/s Diggle Mining Service Pvt. Ltd., Village : Shahpur, Thana : Naudiha Bazar, Thana No. : 380, Distt. : Palamu, Jharkhand (1.687 Ha).

(Proposal No. : SIA/JH/MIN/429917/2023).

Project Category: B2 – Application for Environment Clearance

EC Application for: Stone: 29,729 Cu.M. / year i.e 83,241 Tonnes / year

Name of the Consultant: M/s P & M Solution, Noida -201301 UP.

This is a new project which has been taken for appraisal on 22.05.2023

Project and Location Details :

Sl	Parameter	Details
1	Project Name	: Shahpur Stone Deposit of M/s Diggle Mining Service Pvt. Ltd,
2	Applicant Address:	: M/s Diggle Mining Service PVT. Ltd Director: 1. - Sri Prabhakar Mishra At Village - Makari, P.O. - Makari, Thana – Bhawanathpur, District - Garhwa, Jharkhand - 822112

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[Handwritten signatures and initials]

		Director: 2. - Sri Shishupal Sharma At - Dinabigha, P.O. - Datiyana, Thana – Vikram, District - Patna, Bihar.	
3	Lease Address :	In Mouza - Shahpur, Thana – Naudiha Bazar, Thana No. - 380, District - Palamu, Jharkhand.	
4	Applied Area	Ha: 1.687 Hectares	Acres: 4.17 Acres
5	Type of Land	Non Forest – Raiyati Land	
6	Project Cost	46 Lakhs	
7	EMP Budget	Capital: 13.54 Lakhs	Recurring: 8.37 Lakh / year
8	CSR / CER Budget	Rs. 0.92 Lakhs	
9	New or Expansion	New	
10	Mineable Reserves	Cu.M.: 1,48,350 Cu. M.	Tonnes: 4,15,381 Tonnes
11	Mine Life	5 years	
12	Man power	30	
13	Water Requirement	24.05 KLD Drinking: 0.30 KLD, Dust Suppression: 11.55 KLD, Plantation: 12.2 KLD	
14	Water Source	From nearby authorized sources.	
15	DG Set / power	60 KVA	
16	Crusher	Yes	
17	Nearest Water Body	Batane River flowing Approx. 7.30 Km away towards North - West direction.	
18	Nearest Habitation	Shahpur village is approx. 1.48 Km aerial distance away in North - East direction.	
19	Nearest Rail Station	Kajri Railway Station is situated approx. 32.76 Km aerial distance away in South West direction.	
20	Nearest Air Port	Gaya International Airport, Bihar is situated approx. 81.55 Km aerial distance away in North East direction.	
21	Nearest Forest	Nearest Forest is situated more than 250m away from the proposed project.	
22	Road & Highways	Highway: NH-98 is near about 14.10 Km aerial distance away. Approach Road: Saraidih – Shahpur - Haraiya Road is near about 0.72 Km aerial distance away in north direction.	

CO-ORDINATES

1	Latitude	:	From N 24°17'38.25"	To N 24°17'50.93"
2	Longitude	:	From E 84°18'16.68"	To E 84°18'23.02"

LAND DETAILS :

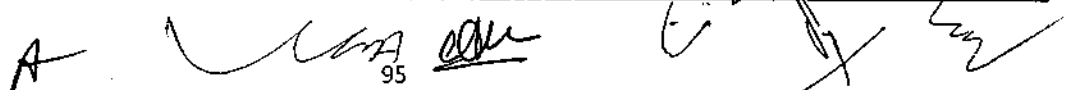
Khata No.	72
Plot No.	295, 297, 299, 300, 302, 304 & 306

STATUTORY CLEARANCES :

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Office, Palamu, Medninagar vide letter no. 3407/M dated 26.12.2022.
2	CO	:	The CO, Naudiha Bazar, Palamu vide letter no. 346, dated 15.12.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyon or Register II.
3	DMO	:	DMO, Palamu, Medninagar vide memo no. 257/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, Core area Palamu Tiger Reserve, North division Medninagar vide letter no. 719, dated 01.09.2021 certified that the proposed project site is outside Eco Sensitive Zone of Betla National Park & Palamu Wildlife Sanctuary.
5	DFO Forest Distance	:	Division Forest Officer, Medninagar Forest Division vide letter no. 1994, dated 06.07.2021 certified that the distance of notified forest is more than 250 m from proposed project site.
6	DSR	:	The DC-cum-District Magistrate, Palamu, Medninagar, vide letter no. 962/M, dated 08.05.2023 has informed that this project is part of District Survey Report (DSR) of Palamu district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Naudiha Bazar, Palamu vide letter no 628, Dated 23.11.2022 informed that Gram Sabha conducted on dated 21.11.2022.
8	Mine Plan Approval	:	Approved by the District Mining Officer, Garhwa, Jharkhand vide Memo No. 634/M dated 17.05.2023

Working Details :

1	Mining Method	:	Opencast Mechanized Mining.
2	Quarry Area	:	5 years – 0.66 Ha Life of Mine – 0.66 Ha
3	Waste Generation	:	5 years– 2982 Cu.M (Gritty Soil) Life of Mine – 2982 Cu.M (Gritty Soil)
4	Stripping Ratio	:	1 : 0.02

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5	Working Days	:	300 Days
6	Benches: size & No	:	Size: 6m x 6m, No. - 3
7	Elevation of Mine	:	Highest RL 295m AMSL, Lowest RL 290m AMSL
8	Ground Level Elevation	:	290m AMSL
9	Ultimate Working Depth	:	277m AMSL
10	Water Table	:	267m AMSL
11	Topography of Mine	:	Gently sloping land.
12	Explosive Requirement	:	18.9 Tons/year
13	Diesel/Fuel requirement	:	42 KL/year (140 Litres/day)

Production Details

Year	Production of stone		Removal of Gritty Soil (Cum)	Bench RL in Meters
	(Cum)	(Tonne)		
1st Year	29,574	82,807	1166	295m – 289m
2nd Year	29,696	83,149	1396	295m – 289m
3rd Year	29,658	83,042	Nil	293m – 283m
4th Year	29,677	83,096	Nil	289m – 277m
5th Year	29,729	83,241	420	290m – 277m
Total	1,48,334	4,15,335	2982	

Land Use

SL	Pattern	Existing Land Use (Ha)	Proposed Current Plan Period (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Land Usage at Conceptual Stage
1	Mining Area (Quarry)	0.02	0.66	0.66	0.66	Water body
2	Green Belt Within Safety Barrier	Nil	0.93	0.93	0.93	Plantation
3	Road	0.01	Nil	Nil	Nil	-
4	Crusher	Nil	0.02	--	--	--
5	Non Mining Area	Nil	0.077	0.097	0.097	Plantation
6	Unutilized	1.657	Nil	Nil	Nil	-
	TOTAL	1.687	1.687	1.687	1.687	

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	Location		Area/Length	No of Trees
1	Safety Zone	:	0.93 Ha	2325 trees @ 2500 trees per Ha
2	Non Mining Area	:	0.097 Ha	243 trees @ 2500 trees per Ha
3	Haul /Approach Road	:	0.144 Ha	482 trees on both sides – 3m distance
			i.e. Length 720 width 2m	

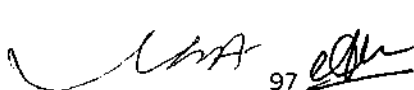


- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement,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

Solid Waste Management

- Waste (Gritty Soil) Generation will be 2982 Cu.M. during the life of Mine.
- During 1st year of mining, the removed gritty soil will be used in haul road dressing & plantation & in 2nd year removed gritty soil will be dumped in the northern side of the applied area & in 5th year of mining, previously dumped soil together with the soil removal from 5th year working, will be backfilled within the exhausted quarry.

Water Quality Management

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

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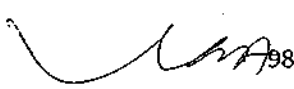




Air Quality Management

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

Undertaking submitted affirming:

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

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF & CC O.M dated 12.12.18 decided that the proposal for Shahpur Stone Deposit of M/s Diggle Mining Service Pvt. Ltd., Village : Shahpur, Thana : Naudiha Bazar, Thana No. : 380, Distt. : Palamu, Jharkhand (1.687 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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19. M/s Jai Baba Baidyanath Stone Works (Partners : Shri Rana Kundan Singh and Others) Village : Chatakman, Thana : Ranka, Thana No. : 104, Distt. : Garhwa, Jharkhand (2.19 Ha).

(Proposal No. : SIA/JH/MIN/429836/2023).

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 64444.44 cum/annum or 1,74,000.00 TPA

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

This is a new project which has been taken for appraisal on 22.05.2023.

Project and Location Details :

Sl	Parameter	Details
1	Project Name	: M/S Jai Baba Baidyanath Stone Works
2	Lessee:	: M/s Jai Baba Baidyanath Stone Works Partner: Sri Rana Kundan Singh
3	Lease Address	: Village – Chatakman, Thana- Ranka , Thanna No.- 104, District – Garhwa, Jharkhand
4	Lease Area	: 2.19 ha Acres- 5.42 Acres
5	Type of Land	: Non Forest – Raiyati Land
6	Project Cost	: Rs. 70 Lakhs
7	EMP Budget	: Capital: 3.74 Lakhs Recurring: 3.27 Lakh / year
8	New or Expansion	: New
9	Mineable Reserves	: cum.: 661200.00 cum Tonnes: 1785240.00 tons
10	Mine Life	: 10.26 years
11	Man power	: 27
12	Water Requirement	: 6.653 ~ 6.70 KLD(Drinking: 0.27 KLD, Dust Suppression: 2.767 KLD, Plantation: 3.616 KLD)
13	Water Source	: From Nearby villages by tankers
14	DG Set / power	: 500 KVA
15	Crusher	: No crusher
16	Nearest Water Body	: Hathu Nadi, approx. 2.5 km towards E direction of mine site.
17	Nearest Habitation	: Brahmandiha, at approx 0.68 km towards North direction.
18	Nearest Rail Station	: Garhwa Road Railway station, approx. 34.5 km towards NE direction.
19	Nearest Air Port	: Birsa Munda International Airport, approx. 166.0 km towards SE direction.
20	Nearest Forest	: Ulka PF- approx. 3.0 Km in West direction of mine site. Siswa PF - approx. 3.5 km in NE direction of mine site.
21	Road & Highways	: Ranka-Ramkanda Road, approx.1.6 km in East direction.

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	NH- 343, Approx. 6.8 km in NW direction.
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CO-ORDINATES


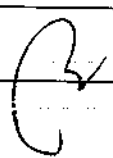

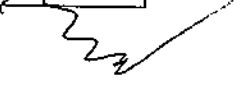
1	Latitude	From 23°54'41.93"N	To 23°45'49.92" N
2	Longitude	From 83°49'10.05"E	To 83°49'16.00" E

LAND DETAILS :

Khata No.	Plot No.
50 (Old)	Old - 244
141 (New)	New - 928, 929 & 930(P)

STATUTORY CLEARANCES :

1	LOI/Lease docs	: The Letter of Intent (LoI) has been issued by DMO, Garhwa vide letter no. 491/M, dated 18.04.2023.
2	CO	: The CO, Ranka vide letter no. : 78, dated 22.02.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyon & Register II.
3	DMO	: DMO, Garhwa vide memo no. 612/M, dated 13.05.2023 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	: Deputy Director, Palamu Tiger Project, North Division, Medininagar vide letter no. : 306, dated 14.03.2023 certified that the proposed project site is outside Eco Sensitive Zone of Palamu Wildlife Sanctuary, Betla National Park and Mahuadanr Wolf Sanctuary.
5	DFO Forest Distance	: DFO, Garwa South Forest Division vide letter no. : 634, dated 09.03.2023 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	: The DC – cum – District Magistrate, Garhwa vide letter no. 629/M, dated 16.05.2023 has informed that this project is part of District Survey Report (DSR) of Garhwa district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	: Gram Sabha conducted on 13.02.2023.

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8	Mine Plan Approval	:	DMO, Garhwa vide letter no. 610, dated 12.05.2023.
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Working Details

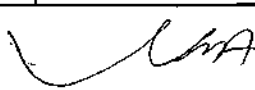

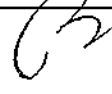
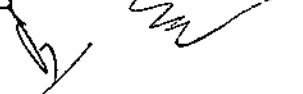
1	Mining Method	:	Opencast other than fully mechanized (OTFM) Method
2	Quarry Area	:	1.47 ha. Or 3.63 Acres
3	Waste Generation	:	8036.0 cum or 21697.2 tons
4	Stripping Ratio	:	1: 0.007
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	400 AMSL to 394 AMSL
8	Ground Level Elevation	:	392 AMSL
9	Ultimate Working Depth	:	377 AMSL
10	Water Table	:	372 AMSL (15 mbgl)
11	Topography of Mine	:	Area represents hillock topography
12	Explosive Requirement	:	80 kg/day
13	Diesel/Fuel requirement	:	110 litre/day

Production Details

Year	Production of stone (cum)	Production of stone (tons)	Total Waste in (cum)	Bench RL in Meters
1 st	64444.44	174,000.00	4016.0	400 mRL – 394 mRL
2 nd	64444.44	174,000.00	4020.0	400 mRL – 394 mRL
3 rd	64444.44	174,000.00	-	394 mRL – 388 mRL
4 th	64444.44	174,000.00	-	394 mRL – 388 mRL
5 th	64444.44	174,000.00	-	388 mRL – 382 mRL
Total	322222.2	870000.00	8036.0	

Land Use

Type of land use	Existing (Ha)	During Plan Period of Mines (Ha)
Barren Land	2.18	Nil
Quarry	Nil	1.47 (Converted into water reservoir)
Overburden dump	Nil	0.15
Infrastructure	Nil	0.01

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Approach roads	0.01	Nil
Garland drain	Nil	0.06
Safety Zone		0.49 (Green belt)
Settling Tank	Nil	0.01
Area which will remain untouched	2.18	Nil
Total	2.19	2.19

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.49 ha	1225
2	Along Approach Road	0.052 km	53
3	Anganwadi, School, Panchayat office etc	-	530

- 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 has been calculated that total 8036.00 cum of OB will be generated, which will be proposed to dump within the applied lease area with an average area 0.15 ha and height 5.33 m in first & second year of exploration. There will be a waste dump yard site. Some amount of OB/waste will be used to construction of approach road to the mine site and remaining will be storing in NW side the lease 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.

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- 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 M/s Jai Baba Baidyanath Stone Works (Partners : Shri Rana Kundan Singh and Others) Village : Chatakman, Thana : Ranka, Thana No. : 104, Distt. : Garhwa, Jharkhand (2.19 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

20. Shankardih Stone Deposit of M/s Maa Bhawani Stone Minerals (Partners : Shri Dashrath Mandal & Shri Sunil Kumar), Village : Shankardih, Thana : Dumri, Distt.: Giridih, Jharkhand (2.384 Ha).

(Proposal no. : SIA/JH/MIN/ 429483/2023)

Project Category: B1 – Application for Terms of Reference (ToR)

EC Application for: Proposed Capacity- 42291.15 cum/annum or 114186.11 TPA

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

This is a new project which has been taken for appraisal on 22.05.2023.

Project and Location Details :

S. No.	Parameter	:	Details
1	Project Name	:	Shankardih Stone Deposit
2	Lessee:	:	M/S Maa Bhawani Stone Minerals (Partners- 1. Sri. Dashrath Mandal & 2. Sri Sunil Kumar)
3	Lease Address	:	Village – Shankardih, Thana- Dumri, District – Giridih, State- Jharkhand
4	Lease Area	:	2.384 ha Acres- 5.89 Acres
5	Type of Land	:	Non Forest – Raiyati Land
6	Project Cost	:	Rs. 25 Lakhs
7	EMP Budget	:	Capital: 4.16 Lakhs Recurring: 3.77 Lakhs / year
8	New or Expansion	:	New
9	Mineable Reserves	:	cum.: 420483.30 cum Tonnes: 1135304.91 tons
10	Mine Life	:	5 years
11	Man power	:	26
12	Water Requirement	:	7.90 ~ 8.0 KLD (Drinking: 0.26 KLD, Dust Suppression: 4.18 KLD,

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			Plantation: 3.46 KLD)
13	Water Source	:	From Nearby villages by tankers
14	DG Set / power	:	500 KVA
15	Crusher	:	No crusher
16	Nearest Water Body	:	Jamuniya Nadi, Approx. 3.82 km towards SW direction of mine site Paraiya Nadi, Approx. 8.51 km towards NW direction of mine site
17	Nearest Habitation	:	Shankardih, at approx 0.500 km.
18	Nearest Rail Station	:	Bholidih Railway station, approx. 2.40 km towards SSW direction.
19	Nearest Air Port	:	Birsa Munda Airport, approx. 106.10 km towards SW direction.
20	Nearest Forest	:	Parasnath Protected Forest - Approx. 1.94 km towards North direction of mine site. Protected Forest- Approx. 2.48 km towards SE direction of mine site.
21	Road & Highways	:	NH- 19, Approx. 0.71 km. in NE direction.

CO-ORDINATES

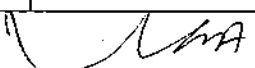

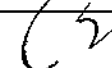
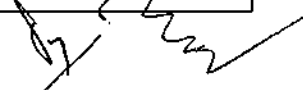
1	Latitude	From 23°54'59.93" N	To 23°55'11.49" N
2	Longitude	From 86°07'33.15" E	To 86°07'43.55" E

LAND DETAILS :

Khata No	Plot No
47	823(P)
70	798(P)
71	822(P), 1388(P)

STATUTORY CLEARANCES :

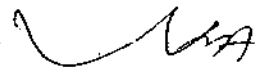



1	LOI/Lease docs	:	The Letter of Intent (LoI) issued by DMO, Giridih vide letter no. 174/M, dated 14.02.2022.
2	CO	:	The CO, Dumri (Giridih) vide letter no. : 465, dated 28.07.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in Khatiyon.
3	DMO	:	DMO, Giridih vide memo no. 323/M, dated 23.03.2023 certified

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		that 04 other mining lease area (2.64 acre, 2.5825 acre, 3.19 acre & 3.69 Acre) exists within 500 m radius from proposed project site and total area is 17.9925 Acre.
4	DFO Wild Life	: DFO, Wildlife Hazaribagh vide letter no. : 254, dated 18.02.2022 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. : 560, dated 18.02.2022 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. 431/M, dated 25.04.2023 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 04.08.2022.
8	Mine Plan Approval	: DMO, Koderma vide letter no. 857, dated 02.05.2023.

Working Details

1	Mining Method	: Opencast semi mechanized Method
2	Quarry Area	: 2.384 ha. Or 5.89 Acres
		Life of Mine – 10 Years
3	Waste Generation	: 25667.92 cum or 69303.384 tons
4	Stripping Ratio	: 1: 0.06
5	Working Days	: 300
6	Benches: size & No	: 6m to 6m
7	Elevation of Mine	: 264 AMSL to 270 AMSL
8	Ground Level Elevation	: 264 AMSL
9	Ultimate Working Depth	: 242 AMSL
10	Water Table	: 225 AMSL (20 mbgl)
11	Topography of Mine	: Area represents small hillock topography
12	Explosive Requirement	: 90 kg/day
13	Diesel/Fuel requirement	: 110 litre/day

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Production Details

Year	Production of stone (cum)	Production of stone (tons)	Total Waste in (cum)	Bench RL in Meters
1 st	42088.80	113639.76	8980.08	266 mRL – 260 mRL
2 nd	42088.80	113639.76	3016.08	266 mRL – 254 mRL
3 rd	42291.15	114186.11	4937.34	266 mRL – 254 mRL
4 th	42291.15	114186.11	1955.34	254 mRL – 248 mRL
5 th	42088.80	113639.76	6779.08	254 mRL – 248 mRL
Total	210848.70	569291.49	25667.92	

Land Use

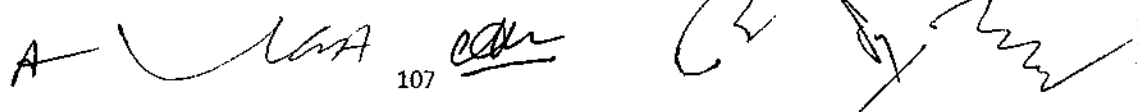
Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Quarry	-	0.928	1.884
Road	-	0.045	-
Waste Dump	-	0.325	-
Safety Zone Plantation	-	0.500	0.500
Total	-	1.798	2.384
Balance	-	0.586	-
Lease Hold Area	2.384	2.384	2.384

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.500 ha	1250
2	Along 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

There is generation of 25667.92 cum or 69303.384 tons waste during 1st to 5th year of the plan period, out of which 50% of loose waste material i.e.- 13636.1 cum shall be used for making and maintenance of mine road and 50% of loose waste material i.e.- 13636.1 cum shall be dumped in the southern side of the applied lease area with overall height of 4.5m which will cover 0.325ha.

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.

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 22, 23, 24, 25 & 26.05.2023, 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 II alongwith the following specific conditions :

- i. Copy of approved mine plan should be submitted at the time of submitting the final EIA for consideration for grant of Environmental Clearance. The mine plan must be approved as per directive of Deptt. of Mines & Geology, Govt. of Jharkhand issued vide letter no. 2078A, dated 27.09.2014.

21. Pipaljori Stone Mine of M/s Pakur Mining (Partners : Shri Gyan Prakash Singh & Shri Sunil Tudu), Village : Pipaljori, P.S. : Malpahari OP, Distt.: Pakur, Jharkhand (2.467 Ha).

(Proposal no. : SIA/JH/MIN/429255/2023)


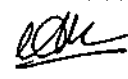


Project Category: B1 -- Application for Terms of Reference (ToR).

EC Application for: Proposed Capacity- 29204 cum/annum or 81771 TPA.

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

This is a new project which has been taken for appraisal on 22.05.2023.

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.

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Project and Location Details:

Sl	Parameter	Details	
1	Project Name	: Pipaljori Stone Deposit	
2	Lessee:	: M/S Pakur Mining, (Partners- Sri Gyan Prakash Singh & Sri Sunil Tudu)	
3	Lease Address	: Village – Pipaljori, P.S- Malpahari OP, District – Pakur, State :- Jharkhand	
4	Lease Area	: 2.467ha	Acres- 6.094Acres
5	Type of Land	: Non Forest – Raiyati Land	
6	Project Cost	: Rs. 70 Lakhs	
7	EMP Budget	: Capital: 5.82 Lakhs	Recurring: 4.77 Lakh / year
8	New or Expansion	: New	
9	Mineable Reserves	: cum.: 325800.0 cum	Tonnes: 912240.0 tonnes
10	Mine Life	: 11 years	
11	Man power	: 33	
12	Water Requirement	: 9.71 ~10.00KLD(Drinking: 0.33 KLD, Dust Suppression: 5.21 KLD, Plantation: 4.17KLD)	
13	Water Source	: From Nearby villages by tankers	
14	DG Set / power	: 200 KVA	
15	Crusher	: No crusher	
16	Nearest Water Body	: Basloi River About 10 Km towards South Direction	
17	Nearest Habitation	: Pipaljori, at approx 0.60 km towards West direction.	
18	Nearest Rail Station	: Nagarnabi Railway station, approx. 1.60 km toward ENE direction.	
19	Nearest Air Port	: Deoghar Airport, approx. 118.10 km towards WSW direction.direction	
20	Nearest Forest	: Approx. 5.60 km towards West direction of mine site. Approx. 3.10 km towards SW direction of mine site.	
21	Road & Highways	: NH-133A, Approx. 5.45 km. in North direction.	

CO-ORDINATES


1	Latitude	From 24°35'17.12" N	To 24°35'15.61" N
2	Longitude	From 87°51'5.39" E	To 87°51'4.05" E

LAND DETAILS :

Khata No.	Plot No.
02	511, 512, 476, 510, 489 (P), 478, 484, 483, 488
16	513
17	498, 487, 482, 485 & 516 (P)
19	499
25	481, 479 & 480

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Pakur vide letter no. 653/M, dated 11.04.2022.
2	CO	:	The CO, Pakur vide letter no. : 18/Ra, dated 08.01.2022 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. 716/M, dated 12.04.2023 certified that 04 other mining lease area (4.75 Acre, 4.42 Acre, 6.60 Acre & 4.094 Acre) exists within 500 m radius from proposed project site and total area is 10.50 Ha.
4	DFO Wildlife	:	DFO -cum- Incharge Wildlife Sanctuary, Udhwa (Sahibganj) vide letter no. : 2204, dated 24.08.2022 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.
5	DFO Forest Distance	:	DFO, Pakur Forest Division vide letter no. : 162, dated 24.01.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC-cum-District Magistrate, Pakur vide letter no. 573/M, dated 18.03.2023 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. 142/Vi, dated 20.01.2022 informed that Gram Sabha conducted on 12.01.2022.
8	Mine Plan Approval	:	DMO, Pakur vide memo no. 879/M, dated 10.05.2022.



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Working Details

1	Mining Method	:	Opencast other than fully mechanized (OTFM) Method
2	Quarry Area	:	2.467ha. Or 6.094Acres
3	Waste Generation	:	9093 cum or 25460.4 tonnes
4	Stripping Ratio	:	1: 0.007
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	105AMSL to 106 AMSL
8	Ground Level Elevation	:	104AMSL
9	Ultimate Working Depth	:	85 AMSL
10	Water Table	:	69AMSL (35mbgl)
11	Topography of Mine	:	Area represents undulating topography
12	Explosive Requirement	:	80kg/day
13	Diesel/Fuel requirement	:	110 litre/day

Production Details

Year	Production of Stone		Waste (cum)	Bench RL in Meters
	(in Tones)	(in cum)		
1st	81446	29088	5242	105mRL – 99mRL
2nd	81452	29090	3851	106mRL – 93 mRL
3rd	81771	29204	00	99mRL -- 93mRL
4th	81396	29070	00	99mRL – 93mRL
5th	81480	29100	00	93mRL – 87mRL
Total	407545	145552	9093	

Land Use

Pattern of Utilization	Existing (Ha)	During Plan Period (ha)	After Life of Mine (ha)
Quarry	--	0.87	1.73
Haul Road	--	0.03	0.007
Proposed Crusher	--	--	--
Greenbelt in Safety Zone	--	0.73	0.73
Dump with Parapet wall &	--	0.11	Nil (Waste dump to be

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Garland Drain			removed and backfilled)
Total area in use	--	1.74	2.467
Unused Area	2.467	0.727	--
Lease hold area	2.467	2.467	2.467

ENVIRONMENT MANAGEMENT

Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.73 ha	1825
2	Along Approach Road	0.26 km	260

- 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 9093 cum or 25460.4 tonnes 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 than necessary permission shall be taken from the competent authority.

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 22, 23, 24, 25 & 26.05.2023, 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 II.

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Day 2 : May 23rd, 2023 [Tuesday]

Consideration of Proposals

1. **Expansion of Sirka OCP (1.0 MTPA) Argada Area of M/s Central Coalfields Limited, Village : Sirka, Tehsil : Ramgarh, Distt. : Ramgarh, Jharkhand (110.94 Ha).**
(Proposal No : SIA/JH/CMIN/423471/2023)

Name of the consultant : CMPDI, RI-III, Ranchi

This is an expansion project which has been taken for appraisal on 23.05.2023.

The project is a violation case since the project had come in to operation without obtaining prior Environmental Clearance. The project was considered by MoEF&CC, Govt. of India under the notification no. 804(E), dated 14.03.2017 and has approved the violation ToR vide letter no. IA-J-11015/30/2020-IA-II(M), dated 01.02.2021 and amendment in ToR was granted by MoEF&CC, Govt. of India vide letter no. IA-J-11015/30/2020-IA-II(M), dated 28.02.2022. The final EIA / EMP submitted by PP to SEIAA on 08.05.2023 and which was forwarded to SEAC on 18.05.2023.

Sirka OCP is a brownfield opencast coal mining project, located in the South Karanpura coalfields, falling within Sirka village of Ramgarh block, District Ramgarh of Jharkhand. This project is under the administrative control of Argada Area of CCL.

Sirka OCP had been a part of Argada-Sirka Group Mixed Mines, consisting of Sirka OCP, Sirka UGP and Argada UGP. Argada-Sirka Group Mixed Mines had obtained Environmental Clearance vide: J-11015/462/2008-IA.II(M) on 25.09.2014.

Sirka UG and Argada UG have been officially closed after the approval of Board of Directors, CCL in its 440th meeting held on 25.03.2017. Final mine closure activities are being implemented.

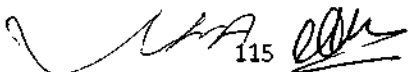

The life of Sirka OCP as per the obtained EC was 04 years. However, due to available balance mineable reserve at the end of mine life, a proposal for extension of validity of EC in respect of Sirka OCP (1.0/1.15 MTPA) was submitted to MoEF&CC on 10.04.2019. The proposal was considered on 24.01.2020 where EAC observed the following:

"The EAC, after deliberations observed that in view of the mine life earlier estimated to be of 4 years for one of the mines, environmental clearance dated 25th September 2014 was valid till 25th September 2018 only. There being no amendment so far in the said environmental clearance and the same no more valid as of now ongoing/continuing mining would be seen as violation of the EIA Notification, 2006"

Subsequently, MoEF&CC directed to submit fresh application for Environmental Clearance as per EIA Notification, 2006 vide letter no. J-11015/482/2008-IA.II(M) dated 14.10.2020. CCL has submitted Form-I Application of Sirka OCP (1.0 MTPA/ 277.09 Ha) as per EIA Notification, 2006 on 24.12.2020 on Parivesh portal.

Terms of Reference (ToR) has been obtained in respect of Sirka OCP (1.0 MTPA/ 277.09 Ha) under violation category vide MOEF&CC Letter: IA-J-11015/30/2020-IA-II (M) Dt. 01.02.2021. Further, CCL has requested amendment in the granted ToR for reduction in the project area from 277.09 Ha to 110.94 Ha, by excluding undiverted forest land. Accordingly, amended Terms of Reference (ToR) has been issued vide MOEF&CC letter: J-11015-/30/2020-IA-II(M) Dt. 28.02.2022.

The project has come into violation due to production in absence of EC in the period 25.09.2018 to 31.03.2019.

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Sirka Block is well connected by Rail and road. The nearest Railway station Argada of Eastern Railway on Gomoh–Barkakana–Dehri-on-Sone loopline is about 2 km from the Project. The State Highway No 2 (SH-2) runs South of the project at a distance of around 2 km, which connects Ramgarh (about 16km) in the east and Patratu (about 10km) in the west. The existing road communication connects the block with other adjoining projects and also the office of the GM, Argada Area. The block is about 65km from Ranchi via SH-2. The nearest commercial airport is situated at Ranchi.

Drainage: The main drainage of in the core area and as well buffer area is controlled by perennial river Damodar. The Damodar River flows in the southern side of core area (2km buffer) in majority area on the south of the lease hold area of the proposed project through the central part of the total buffer area. Pararu, an ephemeral stream, flows on the eastern side of the project area from north to south to discharge water in Damodar. The other major tributaries of Damodar River present in the buffer zone are northerly flowing Sherbhukl stream, which joins Damodar at around 2.00km in the south of the project. The other streams which flow in the buffer zone are Rauta stream, Meramgarh stream etc. The drainage pattern of the area is mostly dendritic in nature

Mineable Reserve: Proposed capacity of Sirka OCP is 1.0 MTPA. As per the Mining Plan of Sirka OCP, total mineable reserves have been estimated (as on April 2021) as 3.74 MT corresponding to a volume of OBR of 8.27 Mm³ at an average stripping ratio of 02.21 M³ per tonne. Total estimated life of mine is 5 years.

Power Requirement: A power supply agreement was made on 22.01.1993 between Damodar Valley Corporation and Central Coalfield Limited (A subsidiary of Coal India Limited) to supply electrical energy in bulk to Sirka, CCL (Annexure XXIII). Presently, the mine is receiving power from two nos. of feeders namely 33 kV Giddi feeder and Sirka feeder drawn from Naisarai Sub-station. The feeders feed power to the 5 MVA, 33/11-3.3 kV substation. The power for the proposed (additional to the existing sub-station) 2 x 3.15, 33/6.6 kV substation will be drawn from the existing feeders i.e. 33 kV Giddi feeder and Sirka feeder by tapping arrangement

Water Requirement: The water demand of Sirka OCP is as given below.

Water usage Details

Description Discharge (KL/day)

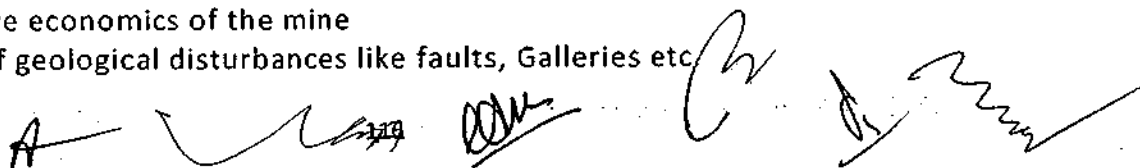
1. Domestic Consumption 1930
2. Industrial Demand 260

Total: 2190 KL/day

Choice of mining method:

The equipment selection process is the most critical part of the project planning. The following selection criteria have been considered for selecting the size and type of the equipment:

- The strike length of the mine
- Annual rate of advance/deepening
- Total volume of overburden and coal to be handled annually
- The individual thickness of coal seam and partings
- The geo-mining condition of the mine
- The type of mining system to be used like Inclined Slicing or Horizontal Slicing.
- The intuitive economics of the mine
- Presence of geological disturbances like faults, Galleries etc.



Based on the above selection criteria and keeping in view of the Geological and Mining parameters of Sirka OCP, Shovel-dumper combination of mining system is most suitable one in the area under consideration. The proposed opencast mine has therefore been designed to be operated by shovel dumper with horizontal slicing method.

Employment Generation: There is a possibility of creation of direct and indirect employment opportunities due to working of this mine. Overall, this will have positive impact on socio-economic profile of the area. CCL will undertake skill development & capacity building programs like vocational training, income generation and entrepreneurship development.

Land Requirement:

The proposed project area of Sirka OCP is 110.94 Ha. The detailed land use break-up during mining is as given below:

Details of land use Area in Ha.

1. Quarry 49.36
2. Dump 21.88
3. Infrastructure, Road and colony 24.94
4. Safety Land/Green Belt 14.76



Total Area 110.94 ha

LAND DETAILS:

Lease Area/Project Area: -110.94 Ha.

Anchal Name: Ramgarh, Thana: Ramgarh, Village: Sirka, Thana No.: 136

Sl. No.	Khata No.	Plot No.	Total Area (In Acre)	Area Under 1.0 MTY (In Acre)	Type Of Land
1	2	335(P)	0.74	0.25	TENANCY
2	2	337(P)	5.95	1.04	TENANCY
3	29	341(P)	0.36	0.13	TENANCY
4	29	343(P)	0.20	0.02	TENANCY
5	29	345(P)	1.98	1.59	TENANCY
6	12	346(P)	2.99	2.65	TENANCY
7	15	347	1.09	1.09	TENANCY
8	12	348	0.62	0.62	TENANCY
9	22	349(P)	2.11	1.43	TENANCY

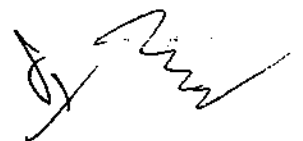
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10	11	350(P)	2.03	1.82	TENANCY
11	11	351(P)	0.47	0.34	TENANCY
12	11	352(P)	2.67	2.29	TENANCY
13	31	353(P)	4.25	2.81	TENANCY
14	14	495(P)	2.06	1.34	TENANCY
15	8	496	0.31	0.31	TENANCY
16	5	497(P)	0.98	0.63	TENANCY
17	26	498(P)	0.34	0.09	TENANCY
18	8	549(P)	0.78	0.15	TENANCY
19	18	550	1.61	1.61	TENANCY
20	18	551	0.31	0.31	TENANCY
21	18	552	0.11	0.11	TENANCY
22	18	553	0.48	0.48	TENANCY
23	5	554(P)	1.50	0.56	TENANCY
24	9	566(P)	1.42	0.22	TENANCY
25	9	567(P)	1.55	0.46	TENANCY
26	8	568	1.03	1.03	TENANCY
27	9	569	0.54	0.54	TENANCY
28	9	570	0.33	0.33	TENANCY
29	18	571	0.46	0.46	TENANCY
30	18	572	0.05	0.05	TENANCY
31	18	573	0.56	0.56	TENANCY
32	19	574	1.28	1.28	TENANCY
33	26	575(P)	6.56	5.68	TENANCY
34	31	576	0.46	0.46	TENANCY
35	7	577	0.49	0.49	TENANCY
36	18	579	0.40	0.40	TENANCY
37	18	580	0.31	0.31	TENANCY
38	18	581	0.28	0.28	TENANCY



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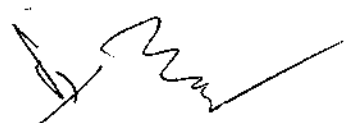






39	18	582	0.23	0.23	TENANCY
40	4	583	0.13	0.13	TENANCY
41	4	584	0.05	0.05	TENANCY
42	18	585	0.03	0.03	TENANCY
43	18	586	0.04	0.04	TENANCY
44	9	587	0.69	0.69	TENANCY
45	9	588	0.71	0.71	TENANCY
46	19	589	1.00	1.00	TENANCY
47	19	590	0.12	0.12	TENANCY
48	9	591	0.02	0.02	TENANCY
49	9	592	0.03	0.03	TENANCY
50	5	594	1.51	1.51	TENANCY
51	5	595	0.10	0.10	TENANCY
52	7	597	0.65	0.65	TENANCY
53	8	598	1.01	1.01	TENANCY
54	8	599	0.03	0.03	TENANCY
55	26	600	0.15	0.15	TENANCY
56	26	601	1.12	1.12	TENANCY
57	26	602	0.01	0.01	TENANCY
58	26	605	0.01	0.01	TENANCY
59	26	606	0.02	0.02	TENANCY
60	26	607	1.92	1.92	TENANCY
61	19	609	1.38	1.38	TENANCY
62	11	610	0.93	0.93	TENANCY
63	7	611	0.68	0.68	TENANCY
64	26	612	1.53	1.53	TENANCY
65	11	613	1.94	1.94	TENANCY
66	29	614	0.85	0.85	TENANCY
67	12	615	1.04	1.04	TENANCY

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B 

68	7	616	0.22	0.22	TENANCY
69	11	617	0.20	0.20	TENANCY
70	12	618	0.23	0.23	TENANCY
71	19	619	0.93	0.93	TENANCY
72	3	620	1.42	1.42	TENANCY
73	14	621	0.62	0.62	TENANCY
74	12	622	0.72	0.72	TENANCY
75	12	623	0.02	0.02	TENANCY
76	10	624	0.98	0.98	TENANCY
77	10	625	0.05	0.05	TENANCY
78	31	626	0.04	0.04	TENANCY
79	31	627	0.06	0.06	TENANCY
80	31	628	1.71	1.71	TENANCY
81	27	630	0.69	0.69	TENANCY
82	29	631	0.69	0.69	TENANCY
83	6	632	0.02	0.02	TENANCY
84	6	633	0.82	0.82	TENANCY
85	10	634	0.97	0.97	TENANCY
86	27	635	1.05	1.05	TENANCY
87	15	636	0.85	0.85	TENANCY
88	14	637	1.14	1.14	TENANCY
89	15	638	0.66	0.66	TENANCY
90	10	639	0.67	0.67	TENANCY
91	19	640	0.29	0.29	TENANCY
92	22	641	0.07	0.07	TENANCY
93	22	642	0.05	0.05	TENANCY
94	22	643	0.87	0.87	TENANCY
95	15	644	0.04	0.04	TENANCY
96	15	645	1.00	1.00	TENANCY

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97	15	646	0.18	0.18	TENANCY
98	10	647	0.20	0.20	TENANCY
99	12	649	0.44	0.44	TENANCY
100	33	650	0.04	0.04	TENANCY
101	33	651	0.13	0.13	TENANCY
102	11	652	0.42	0.42	TENANCY
103	31	653	0.34	0.34	TENANCY
104	37	654	0.36	0.36	TENANCY
105	29	656	0.09	0.09	TENANCY
106	29	657	0.51	0.51	TENANCY
107	25	658	0.03	0.03	TENANCY
108	25	659	1.88	1.88	TENANCY
109	31	660	1.08	1.08	TENANCY
110	19	662	0.81	0.81	TENANCY
111	7	663	0.22	0.22	TENANCY
112	11	664	2.13	2.13	TENANCY
113	7	665	0.29	0.29	TENANCY
114	11	666	0.04	0.04	TENANCY
115	11	667	0.10	0.10	TENANCY
116	7	669	0.01	0.01	TENANCY
117	27	670	0.03	0.03	TENANCY
118	7	671	0.01	0.01	TENANCY
119	7	672	0.01	0.01	TENANCY
120	7	673	0.05	0.05	TENANCY
121	7	674	0.22	0.22	TENANCY
122	27	675	0.22	0.22	TENANCY
123	21	676	0.26	0.26	TENANCY
124	21	677	0.03	0.03	TENANCY
125	19	678	0.29	0.29	TENANCY


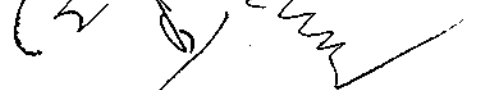
126	3	679	0.34	0.34	TENANCY
127	11	680	1.06	1.06	TENANCY
128	14	681	0.29	0.29	TENANCY
129	11	683	0.74	0.74	TENANCY
130	8	684	0.72	0.72	TENANCY
131	11	685	0.35	0.35	TENANCY
132	19	686	0.54	0.54	TENANCY
133	39	687	0.33	0.33	TENANCY
134	39	688	0.22	0.22	TENANCY
135	14	690	0.14	0.14	TENANCY
136	14	691	0.13	0.13	TENANCY
137	14	692	0.10	0.10	TENANCY
138	14	693	0.31	0.31	TENANCY
139	14	694	0.28	0.28	TENANCY
140	10	695	0.94	0.94	TENANCY
141	11	696	1.42	1.42	TENANCY
142	14	697	1.22	1.22	TENANCY
143	41	698	0.84	0.84	TENANCY
144	41	699	0.03	0.03	TENANCY
145	14	700	0.01	0.01	TENANCY
146	25	703	0.03	0.03	TENANCY
147	3	704	0.03	0.03	TENANCY
148	25	705	0.74	0.74	TENANCY
149	3	706	0.76	0.76	TENANCY
150	32	708	0.01	0.01	TENANCY
151	32	709	0.01	0.01	TENANCY
152	32	710	0.25	0.25	TENANCY
153	2	711	0.04	0.04	TENANCY
154	2	712	0.32	0.32	TENANCY

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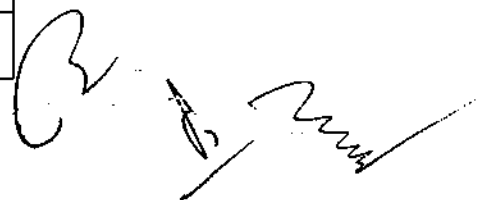
155	31	713	0.53	0.53	TENANCY
156	38	714	0.26	0.26	TENANCY
157	19	715	0.37	0.37	TENANCY
158	31	716	0.24	0.24	TENANCY
159	31	718	0.12	0.12	TENANCY
160	31	719	0.38	0.38	TENANCY
161	11	721	1.55	1.55	TENANCY
162	2	722	3.03	3.03	TENANCY
163	19	723	2.09	2.09	TENANCY
164	33	725(P)	1.27	0.27	TENANCY
165	2	726(P)	2.84	2.11	TENANCY
166	19	727	0.53	0.53	TENANCY
167	8	729	0.73	0.73	TENANCY
168	2	733	0.02	0.02	TENANCY
169	19	734	1.54	1.54	TENANCY
170	40	735	0.01	0.01	TENANCY
171	40	736	0.17	0.17	TENANCY
172	31	737	0.91	0.91	TENANCY
173	14	739	0.65	0.65	TENANCY
174	38	740	0.56	0.56	TENANCY
175	27	743	1.23	1.23	TENANCY
176	27	744	0.22	0.22	TENANCY
177	7	745	0.15	0.15	TENANCY
178	21	746	3.10	3.10	TENANCY
179	3	748	0.36	0.36	TENANCY
180	15	750	0.74	0.74	TENANCY
181	15	751	0.65	0.65	TENANCY
182	22	752	0.56	0.56	TENANCY
183	22	753	0.11	0.11	TENANCY

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184	3	755	0.36	0.36	TENANCY
185	22	757	0.08	0.08	TENANCY
186	14	758	0.42	0.42	TENANCY
187	14	759	0.65	0.65	TENANCY
188	14	760	1.54	1.54	TENANCY
189	14	761	0.04	0.04	TENANCY
190	14	762	0.49	0.49	TENANCY
191	14	765	2.85	2.85	TENANCY
192	7	768	1.10	1.10	TENANCY
193	27	770	0.62	0.62	TENANCY
194	32	772	0.28	0.28	TENANCY
195	7	773	0.72	0.72	TENANCY
196	38	775	0.82	0.82	TENANCY
197	11	778	0.93	0.93	TENANCY
198	7	780	0.69	0.69	TENANCY
199	14	782	0.14	0.14	TENANCY
200	14	783	0.79	0.79	TENANCY
201	29	784	1.13	1.13	TENANCY
202	29	786	1.82	1.82	TENANCY
203	25	787	2.23	2.23	TENANCY
204	22	788	0.54	0.54	TENANCY
205	19	789	0.60	0.60	TENANCY
206	19	790	1.02	1.02	TENANCY
207	19	791(P)	2.74	0.86	TENANCY
208	31	797(P)	1.64	0.63	TENANCY
209	25	800(P)	0.79	0.57	TENANCY
210	25	801(P)	0.19	0.04	TENANCY
211	25	805(P)	0.35	0.07	TENANCY
212	10	807	0.26	0.26	TENANCY

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213	10	808	0.02	0.02	TENANCY
214	10	810	0.1	0.1	TENANCY
215	25	811	0.23	0.23	TENANCY
216	25	812(P)	0.07	0.06	TENANCY
217	25	813	0.06	0.06	TENANCY
218	25	814(P)	1.18	1.1	TENANCY
219	31	815	0.24	0.24	TENANCY
220	19	817	0.44	0.44	TENANCY
221	19	818	1.00	1.00	TENANCY
222	31	819	0.04	0.04	TENANCY
223	31	822	0.38	0.38	TENANCY
224	31	823	0.01	0.01	TENANCY
225	6	824	0.53	0.53	TENANCY
226	31	825	1.40	1.40	TENANCY
227	19	826	1.63	1.63	TENANCY
228	38	827	0.15	0.15	TENANCY
229	31	828	0.14	0.14	TENANCY
230	31	829	0.39	0.39	TENANCY
231	12	830	0.30	0.30	TENANCY
232	12	831	0.41	0.41	TENANCY
233	12	832	0.03	0.03	TENANCY
234	31	833	0.09	0.09	TENANCY
235	31	834	0.04	0.04	TENANCY
236	31	835	1.36	1.36	TENANCY
237	25	836	1.22	1.22	TENANCY
238	25	837	0.44	0.44	TENANCY
239	6	838	0.53	0.53	TENANCY
240	6	839	0.21	0.21	TENANCY
241	2	840	0.20	0.20	TENANCY

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242	2	841	0.41	0.41	TENANCY
243	30	842	0.13	0.13	TENANCY
244	31	843	0.22	0.22	TENANCY
245	30	844	0.13	0.13	TENANCY
246	31	845	0.42	0.42	TENANCY
247	2	847	0.55	0.55	TENANCY
248	10	849(P)	0.23	0.18	TENANCY
249	7	853(P)	1.05	0.67	TENANCY
250	19	857(P)	0.8	0.14	TENANCY
251	29	858(P)	0.53	0.52	TENANCY
252	5	861	1.20	1.20	TENANCY
253	29	862	0.40	0.40	TENANCY
254	29	863	0.02	0.02	TENANCY
255	29	864	0.06	0.06	TENANCY
256	11	865	0.4	0.4	TENANCY
257	7	866	0.03	0.03	TENANCY
258	7	867	0.14	0.14	TENANCY
259	9	868	0.18	0.18	TENANCY
260	9	869	0.21	0.21	TENANCY
261	8	870	0.42	0.42	TENANCY
262	31	871	0.03	0.03	TENANCY
263	26	872	0.44	0.44	TENANCY
264	19	873	0.84	0.84	TENANCY
265	29	874	0.08	0.08	TENANCY
266	11	875	0.82	0.82	TENANCY
267	37	876	0.45	0.45	TENANCY
268	26	877	1.10	1.10	TENANCY
269	19	878	0.11	0.11	TENANCY
270	38	879	0.86	0.86	TENANCY

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271	26	880	0.59	0.59	TENANCY
272	29	881	0.79	0.79	TENANCY
273	7	882	1.17	1.17	TENANCY
274	19	883	2.12	2.12	TENANCY
275	26	885	1.09	1.09	TENANCY
276	18	887	0.29	0.29	TENANCY
277	18	888	0.25	0.25	TENANCY
278	11	889	0.18	0.18	TENANCY
279	19	890	0.13	0.13	TENANCY
280	19	891	0.31	0.31	TENANCY
281	18	892	0.29	0.29	TENANCY
282	18	893	0.18	0.18	TENANCY
283	11	894	0.21	0.21	TENANCY
284	9	895	0.04	0.04	TENANCY
285	9	896	0.13	0.13	TENANCY
286	3	897	0.17	0.17	TENANCY
287	3	898	0.11	0.11	TENANCY
288	18	899	0.01	0.01	TENANCY
289	18	900	0.13	0.13	TENANCY
290	18	901	0.21	0.21	TENANCY
291	18	902	0.16	0.16	TENANCY
292	18	903	0.31	0.31	TENANCY
293	29	904	0.70	0.70	TENANCY
294	12	905	0.54	0.54	TENANCY
295	18	906	0.30	0.30	TENANCY
296	11	907	0.42	0.42	TENANCY
297	18	908	0.63	0.63	TENANCY
298	11	909	0.44	0.44	TENANCY
299	26	910	0.38	0.38	TENANCY

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300	38	911	0.33	0.33	TENANCY
301	14	912	0.73	0.73	TENANCY
302	14	913	0.61	0.61	TENANCY
303	3	914	0.53	0.53	TENANCY
304	19	915	1.21	1.21	TENANCY
305	3	916	0.41	0.41	TENANCY
306	9	917	0.05	0.05	TENANCY
307	9	918	0.13	0.13	TENANCY
308	9	919	0.22	0.22	TENANCY
309	26	920	0.52	0.52	TENANCY
310	11	921	0.05	0.05	TENANCY
311	5	922	0.28	0.28	TENANCY
312	5	923	0.60	0.60	TENANCY
313	5	924	0.65	0.65	TENANCY
314	19	925	0.58	0.58	TENANCY
315	8	926	0.31	0.31	TENANCY
316	19	928	0.85	0.85	TENANCY
317	19	929	0.05	0.05	TENANCY
318	11	930	0.03	0.03	TENANCY
319	11	931	0.33	0.33	TENANCY
320	19	932	0.53	0.53	TENANCY
321	11	933	0.33	0.33	TENANCY
322	12	934	0.60	0.60	TENANCY
323	12	935	0.05	0.05	TENANCY
324	19	936	0.13	0.13	TENANCY
325	11	937	0.30	0.30	TENANCY
326	11	938	0.31	0.31	TENANCY
327	12	939	0.53	0.53	TENANCY
328	12	940	0.02	0.02	TENANCY

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329	8	941	0.13	0.13	TENANCY
330	19	942	0.43	0.43	TENANCY
331	8	943	0.69	0.69	TENANCY
332	14	944	0.01	0.01	TENANCY
333	14	945	0.07	0.07	TENANCY
334	14	946	0.52	0.52	TENANCY
335	14	948	0.53	0.53	TENANCY
336	14	950	1.19	1.19	TENANCY
337	12	952	1.61	1.61	TENANCY
338	26	953	1.48	1.48	TENANCY
339	19	954	0.83	0.83	TENANCY
340	8	955	0.35	0.35	TENANCY
341	7	956	0.41	0.41	TENANCY
342	5	957	0.33	0.33	TENANCY
343	5	958	2.79	2.79	TENANCY
344	19	959	0.95	0.95	TENANCY
345	18	960	2.59	2.59	TENANCY
346	18	961	1.71	1.71	TENANCY
347	18	962	0.74	0.74	TENANCY
348	18	964	0.59	0.59	TENANCY
349	18	965	2.52	2.52	TENANCY
350	4	966	0.55	0.55	TENANCY
351	5	967	1.21	1.21	TENANCY
352	26	970(P)	8.90	7.70	TENANCY
353	19	971	0.82	0.82	TENANCY
354	26	974(P)	0.67	0.56	TENANCY
355	26	976(P)	0.64	0.11	TENANCY
356	4	978(P)	3.04	0.66	TENANCY
357	19	997(P)	2.78	1.69	TENANCY

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358	9	998(P)	3.78	1.79	TENANCY
359	11	1013	0.08	0.08	TENANCY
360	7	1014	0.08	0.08	TENANCY
361	19	1016(P)	1.52	1.39	TENANCY
362	14	1031	0.52	0.52	TENANCY
363	14	1032	0.32	0.32	TENANCY
364	14	1033	0.30	0.30	TENANCY
365	14	1034	0.64	0.64	TENANCY
366	14	1035	0.22	0.22	TENANCY
367	14	1036	0.22	0.22	TENANCY
368	14	1037	0.34	0.34	TENANCY
369	14	1038	0.02	0.02	TENANCY
370	14	1039	0.02	0.02	TENANCY
371	14	1040	0.03	0.03	TENANCY
372	14	1041	0.50	0.50	TENANCY
373	14	1042	0.44	0.44	TENANCY
374	14	1043	0.10	0.10	TENANCY
375	14	1044	1.30	1.30	TENANCY
376	14	1045	0.55	0.55	TENANCY
377	14	1046	0.58	0.58	TENANCY
378	14	1047	0.40	0.40	TENANCY
379	14	1048	0.44	0.44	TENANCY
380	14	1049	0.66	0.66	TENANCY
381	14	1050	0.12	0.12	TENANCY
Total				229.62	acre

VILLAGE	THANA NO.	SI. No.	KHATA	PLOT	TOTAL AREA (IN ACRE)	Area under 1.0 MTY(IN ACRE)	TYPE OF LAND
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SIRKA	136	1	42	648	0.09	0.09	G.M.K
		2	42	682	0.07	0.07	G.M.K
		3	42	707	0.04	0.04	G.M.K
		4	42	717	0.04	0.04	G.M.K
		5	42	720	0.13	0.13	G.M.K
		6	42	730	0.35	0.35	G.M.K
		7	42	731	0.01	0.01	G.M.K
		8	42	732	0.01	0.01	G.M.K
		9	42	738	0.01	0.01	G.M.K
		10	42	741	0.04	0.04	G.M.K
		11	42	742	0.06	0.06	G.M.K
		12	1	747(P)	2.42	1.48	G.M.K
		13	1	749(P)	2.68	1.98	G.M.K
		14	42	754	0.87	0.87	G.M.K
		15	42	756	0.01	0.01	G.M.K
		16	42	763	0.07	0.07	G.M.K
		17	42	764	0.11	0.11	G.M.K
		18	42	766	0.07	0.07	G.M.K
		19	42	767	0.03	0.03	G.M.K
		20	42	769	0.07	0.07	G.M.K
		21	42	771	0.04	0.04	G.M.K
		22	42	774	0.14	0.14	G.M.K
		23	42	776	0.07	0.07	G.M.K
		24	42	777	0.27	0.27	G.M.K
		25	42	779	0.02	0.02	G.M.K
		26	42	781	0.35	0.35	G.M.K
		27	1	792(P)	67.12	8.20	G.M.K
		28	1	799(P)	4.72	0.34	G.M.K
		29	42	785	0.15	0.15	G.M.K

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		30	42	803(P)	0.26	0.04	G.M.K
		31	42	806	0.01	0.01	G.M.K
		32	42	809	0.02	0.02	G.M.K
		33	42	816	0.05	0.05	G.M.K
		34	42	820	0.04	0.04	G.M.K
		35	42	821	0.01	0.01	G.M.K
		36	42	846	0.03	0.03	G.M.K
		37	42	848	0.03	0.03	G.M.K
		38	42	856	0.01	0.01	G.M.K
		39	42	859	0.02	0.02	G.M.K
		40	42	860	0.09	0.09	G.M.K
		41	42	886	0.02	0.02	G.M.K
		42	42	927	0.03	0.03	G.M.K
		43	42	947	1.70	1.70	G.M.K
		44	42	949	0.05	0.05	G.M.K
		45	42	968	1.64	1.64	G.M.K
		46	1	969(P)	20.9	18.52	G.M.K
		47	42	972	0.17	0.17	G.M.K
		48	1	973	0.43	0.43	G.M.K
		49	42	975(P)	0.06	0.05	G.M.K
Total						38.08 acre	

Village	Thana No.	Sl. No.	Khata No.	Plot No.	Total Area (In Acre)	Area Under 1.0 MTY(In Acre)	Type Of Land
SIRKA	136	1	43	578(P)	0.76	0.42	G.M.A.
		2	43	593	0.23	0.23	G.M.A.
		3	43	596	0.22	0.22	G.M.A.

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		4	43	603	0.11	0.11	G.M.A
		5	43	604	0.07	0.07	G.M.A
		6	43	608	0.16	0.16	G.M.A
		7	43	629	0.31	0.31	G.M.A
		8	43	655	0.30	0.30	G.M.A
		9	43	661	0.36	0.36	G.M.A
		116	43	668	0.06	0.06	G.M.A
		10	43	689	0.19	0.19	G.M.A
		11	43	701	0.04	0.04	G.M.A
		12	43	702	0.16	0.16	G.M.A
		13	43	724	1.25	1.25	G.M.A
		14	43	728	0.30	0.30	G.M.A
		15	43	884	0.85	0.85	G.M.A
		16	43	951	0.83	0.83	G.M.A
		17	43	963(P)	0.80	0.58	G.M.A
		Total:-			6.44	Acre	

Latitude & Longitude of the project :

Latitude	Longitude
23° 38' 31"N to 23° 39' 4.60"N	85° 26' 3.45"E to 85° 26' 58"E

Break up of type of land:-

Type of Land	Area in Ha.
Forest Land and GMJJ	NIL
Non Forest Land	110.94

The coal production from Sirka OCP was as given below: -

Financial Year	Coal Production (MTPA)	OB in Mm3	EC Capacity in MTPA
1993-94	0.611	1.747	-
1994-95	0.535	1.247	-
1995-96	0.310	0.944	-

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Financial Year	Coal Production (MTPA)	OB in Mm3	EC Capacity in MTPA
1996-97	0.300	0.705	-
1997-98	0.363	0.667	-
1998-99	0.369	0.790	-
1999-00	0.327	0.554	-
2000-01	0.379	0.657	-
2001-02	0.238	0.584	-
2002-03	0.221	0.553	-
2003-04	0.163	0.422	-
2004-05	0.211	0.621	-
2005-06	0.113	0.734	-
2006-07	0.256	0.677	-
2007-08	0.225	0.802	-
2008-09	0.212	0.611	-
2009-10	0.242	0.740	-
2010-11	0.213	0.543	-
2011-12	0.169	0.581	-
2012-13	0.170	0.609	-
2013-14	0.111	0.865	-
2014-15	0.047	1.595	1.00/1.15 MTPA
2015-16	0.088	1.441	1.00/1.15 MTPA
2016-17	0.059	1.000	1.00/1.15 MTPA
2017-18	0.061	0.522	1.00/1.15 MTPA
2018-19	0.167	0.652	1.00/1.15 MTPA (Valid Till 2018-19)
2019-20	0.000		-
2020-21	0.000		-
2021-22	0.000		-

Sirka OCP: Details of Mineable Reserves and OB Removal:

SN	Year	Coal Production (in MTPA)	OB Generation (in Mcum)	Stripping Ratio
1	Year 1	0.50	2.01	4.03
2	Year 2	1.00	2.25	2.25
3	Year 3	1.00	2.06	2.06
4	Year 4	1.00	1.56	1.56
5	Year 5	0.24	0.38	1.56
	Total	3.74	8.27	2.21

Capital Expenditure:

S. No.	Finance Head	Unit	Values
1.	Total Capital Investment	Rs. crores	222.82

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2.	Cost of Production at 100% production level	Rs. / tonne	1114.49
3.	Average selling price(21-22)	Rs. / tonne	2338.15
4.	Profit/Loss at 100% production level	Rs. / tonne	1223.66

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	:	The CO, Ramgarh vide letter no. 629, dated 11.04.2023 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 Hazaribagh vide letter no. 884, dated 03.05.2023 certified that the proposed project site is outside Eco Sensitive Zone of Hazaribagh Wildlife Sanctuary.
4	DFO Forest Distance	:	DFO, Ramgarh Forest Division vide letter no. 787, dated 29.04.2023 certified that the distance of notified forest is Zero (0) meters from project site.
5	Mine Plan Approval	:	Ref No.:- CS/BM/512/2022/95, Dated:- 24.03.2022.
6	Site Inspection / Monitoring Report	:	Site Inspection / Monitoring Report (Argada Sirka Group Mixed Mines) issued by Integrated Regional Office , MoEF&CC, Govt. of India vide letter no. 103-466/PT/913, dated 15.02.2023.
7	Public Hearing	:	JSPCB, Regional Office -cum - Laboratory, Hazaribag vide letter no. 717, dated 25.07.2022 informed that the Public Hearing conducted on 05.07.2022.
5	Previous Environmental Clearance (EC)	:	Previous EC granted by MoEF&CC, Govt. of India vide letter J-11015/462/2008-IA.II(M), dated 25.09.2014 for Argada Sirka Group Mixed Mines (Argada UG, Sirka OC & Sirka UG) for (1.125 MTPA normative and 1.293 MTPA peak in a total ML area 907.04 ha).
6	Consent to Operate (CTO)	:	CTO granted by JSPCB vide Ref. no. JSPCB/HO/RNC/CTO/-1378370/2018/533, dated 18.03.2018.

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Based on the presentation made and information provided, the Committee decided that the proposal for Expansion of Sirka OCP (1.0 MTPA) Argada Area of M/s Central Coalfields Limited, Village : Sirka, Tehsil : Ramgarh, Distt. : Ramgarh, Jharkhand (110.94 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure –III alongwith the following specific conditions :

- I. Copy of the approved Site Specific Wildlife Conservation Plan (SSWCP) is to be submitted to SEIAA/SEAC immediately after its approval by the competent authority.
- II. The Project Authorities must ensure Offset of conventional energy requirement of not less than 2% by installation of solar panel. Overall conservation of not less than 20% is to be ensured by use of efficient energy measures.

2. Jharkhand Laiyo Phase - I OCP (1 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 23.05.2023.

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

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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 Danea 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	25.24

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			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

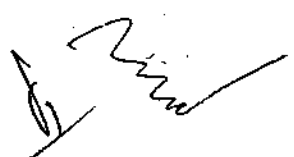
Sl. No	Village	Khata No	Plot No.	Total project in
1	Laiyo	15	1873	0.13
2	Laiyo	15	1874	0.13
3	Laiyo	5	1875	0.22
4	Laiyo	129	1876	9.03
5	Laiyo	5	1899	0.16
6	Laiyo	5	1900	0.12
7	Laiyo	5	1901	0.38
8	Laiyo	129	1902	79.62
9	Laiyo	3	1903	0.13
10	Laiyo	5	1904	0.41

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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

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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
Total (Ha)				147.38

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

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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
5.	Total Capital Investment (as on 31.03.2022)	Rs. crores	148.88
6.	Cost of Production at 100% production level (2021-22)	Rs. / tonne	3006.37
7.	Average selling price(21-22)	Rs. / tonne	3120
8.	Profit/Loss at 100% production level(21-22)	Rs. / tonne	113.63

Cost of environmental cost 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

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			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	:	Previous EC granted by MoEF&CC, Govt. of India vide letter no. 11015/03/2015-IA.II(M) dated 08.02.2017			
8	Consent to Establish (CTE)	:	CTE issued by JSPCB vide Ref. no. JSPCB/HO/RNC/CTE-7399605/2020/374, dated 29.09.2020.			
8	Consent to Operate (CTO)	:	CTO issued by JSPCB vide Ref. no. JSPCB/HO/RNC/CTO-14052414/2023/296, dated 08.02.2023.			

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 22, 23, 24, 25 & 26.05.2023, the Committee recommends for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure IV alongwith specific conditions :

- I. Public Hearing is to be conducted as per EIA notification, 2006.
- II. The Project Authorities must ensure Offset of conventional energy requirement of not less than 2% by installation of solar panel. Overall conservation of not less than 20% is to be ensured by use of efficient energy measures.

3. Kedla Open Cast Project (2 MTY) of M/s Central Coalfields Limited (Hazaribag Area), Village : Kedla, Tehsil : Mandu, Distt.: Ramgarh, Jharkhand (189.05 Ha).

(Proposal no.: SIA/JH/CMIN/293606/2023)

Name of the consultant : CMPDI, RI-III, Ranchi.

This is an amendment project which has been taken for appraisal on 23.05.2023.

Introduction: Kedla OCP is a brownfield opencast coal mining project under Hazaribagh Area of Central Coalfields Limited. Earlier, Mining Plan of Kedla OCP (1.00/1.35 MTPA) was prepared with a project area of 1084.49 Ha including Kedla block and Gose block and approved by CCL Board on 30.12.2017 in its 450th meeting.

An application in Form-I for EC as per MoEF&CC notification no: SO 804 (E) Dated:14.03.2017 and subsequent notifications 1030 (E) Dated: 08.03.2018 & OM No Z-11013/22/2017-IA-II (M) Dated: 15/16.03.2018 was submitted on 10.04.2018. The Terms of Reference of the project was issued by MoEF&CC vide F. No. 23-244/2018-IA(III)(V) Dated: 22.10.2019.

However, the said proposal involves 773.08 Ha. vacant land which is majorly an un-diverted forest land. Therefore, a revised mining plan has been prepared within the truncated area of 189.05 Ha. and 2.0 MTPA capacity.

Location:

Kedla OCP is an existing project under Hazaribagh Area of Central Coalfields Limited, Jharkhand. The Block is bounded by latitudes 23° 45' 25" to 23° 50' 35" North and longitudes 85° 34' 20" to 85° 37' 50" East. The block is covered in Survey of India toposheet no. 73E/9.

Communication:

The area is approachable through 20 km long Ghatotand Charhi road branching from NH-33 at Charhi. NH-33 connects Ranchi and Hazaribagh. Hazaribagh is about 35 Km away and Ranchi is about 90 Km away by road. Nearest Railway Station is Dania at about 8.0 Km on Gomoh-Barkakana Loop-line of EC. Railway. Nearest Airport is Ranchi at a distance of 90 Km

Drainage:

The drainage of the Area is controlled by the Easterly flowing Kedla Nala in the central part and the Easterly flowing Bokaro Nadi. The Bokaro Nadi flows from west to east in the south of the project. The Central portion of Kedla Block is gently undulating with depressions and occasional sandstone ridges and rounds. The general elevation is 340 m above MSL. The Bokaro River forms the southern boundary and Chutua Nallah flows in the northern half of the block.

Mineable Reserve:

The balance mineable reserves within the proposed project boundary has been estimated as 13.25 MT of coal corresponding to a volume of OBR of 29.17 Mcum at an average stripping ratio of 2.20 cum/te. The life of the project is estimated as 8 years for a rated output of 2 MTPA of 'W-IV' grade coal.

Power Requirement:

Project is receiving power from 2 nos. of 11 kV incoming Kedla feeders from Central substation, Basantpur to Main substation KOCP named as Kedla feeder 1&2. Energy Consumption per tonne of coal production: 66.14 kWh





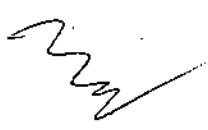
Water Requirement:

The requirement of Industrial water & Potable Water for the operation of the project is estimated to be approximately 323 KL/Day & 300 KL/Day. The water requirement of the project is fulfilled by the mine water & dug-well of Kedla OCP. No Objection Certificate (NOC) for Ground Water Abstraction has been issued for 2460.80 KLD vide no: CGWA/NOC/MIN/ORIG/2021/13999 Dated: 09.12.2021. A detailed water balance study including hydrogeological study will be submitted with EIA/EMP report including proposed mine discharge and consumption from the project

Choice of mining method:

Considering the geo mining characteristics of the project i.e. coal deposits, gradient of the seams, and occurrence of major geological disturbances, opencast method of mining with shovel-dumper combination is proposed to work in Kedla OCP.

Employment Generation:

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The project provides direct employment to around 330 people. Indirect employment potential is in transportation and maintenance of equipment and in contractual works and secondary business opportunities. It is expected to provide indirect employment to approximately 1,500 persons employed in outsourcing & secondary business opportunities.

Land Requirement:

The total project area of Kedla OCP is 189.05 Ha.

The proposed land use during mining is as given below:



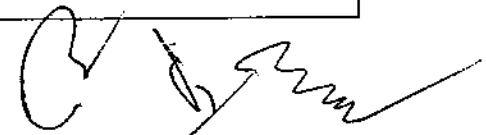
Land Use	Plantation	Water Body	Public Use	Total (in Ha.)
Quarry	83.53	62.76	-	146.29
External OB Dump	35.22	-	-	35.22
Green Belt/Safety Zone	5.34	-	-	5.34
Road	-	-	2.20	2.20
Total	124.09	62.76	2.20	189.05

LAND DETAILS:

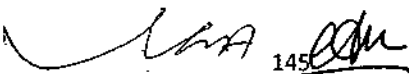
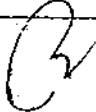

Lease Area/Project Area: - 189.05 Ha.

LAND DETAILS :

S. No.	Village	Thana No.	Khata No.	Plots No.
1	Kedla	160	1	489, 491, 526P, 534, 547P, 565, 583, 600P, 605P, 609P, 610, 618, 619, 620P, 654, 659, 664, 673, 675, 680, 682, 695, 719, 720, 732, 741P, 756, 773P, 792P, 794P, 799, 800, 803, 807, 809, 810, 813, 821, 823, 830, 841, 855, 859, 862, 864, 868, 888, 890, 892, 897, 901, 904, 905, 906, 926, 927, 936, 939, 941, 943, 946, 961, 963P, 996, 999, 1000, 1048, 1052, 1054P, 1060, 1069, 1070, 1073, 1075, 1081, 1083, 1090, 1092, 1104, 1112, 1116, 1122, 1126P, 1127, 1132, 1134P, 1135, 1136P, 1137, 1139, 1142P, 1151, 1164, 1166, 1167, 1169, 1199P, 1205P, 1214
2	Kedla	160	2	532P, 575, 825
3	Kedla	160	3	488P, 556, 584, 589P, 590P, 934, 998
4	Kedla	160	5	601P, 879, 915
5	Kedla	160	6	769, 770P, 771, 772, 793P, 795P, 796, 797, 801, 802, 804, 805, 806, 952P

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6	Kedla	160	7	537, 539, 543, 560, 638, 639, 645, 652, 661, 670, 686, 689, 692, 694, 700, 704, 757, 758, 761, 762, 764, 819, 861, 869, 873, 910, 917, 919, 920, 992P, 1003, 1056, 1102, 1103
7	Kedla	160	8	569, 570, 572, 574, 685, 701, 702, 703
8	Kedla	160	9	611, 612, 617, 948, 1041, 1059
9	Kedla	160	10	533, 710, 721, 722, 723, 724, 725, 726P, 727, 728, 729, 730P, 731P, 733, 826, 827, 832, 833, 835, 937, 938, 940, 945, 947, 994P, 1001, 1002, 1061, 1062, 1185, 1186, 1187, 1188, 1189, 1190, 1191, 1192, 1193, 1194, 1195
10	Kedla	160	12	554, 714, 818, 950, 1007, 1011, 1038P, 1063, 1064, 1072, 1080, 1196, 1197, 1198
11	Kedla	160	14	1037, 1044
12	Kedla	160	15	951P, 955P, 959P, 960, 962P
13	Kedla	160	17	490, 536, 546, 626, 627, 630, 631, 635, 643, 646, 650, 658, 660, 668, 669, 690, 696, 697, 707, 708, 820, 853, 854, 863, 912, 1047, 1057
14	Kedla	160	18	944, 1033P, 1034P, 1035P, 1049P, 1050, 1053, 1055, 1076, 1077, 1078, 1079, 1082, 1084
15	Kedla	160	19	1119, 1120, 1121, 1148, 1152, 1155, 1162
16	Kedla	160	21	1182P, 1183, 1184
17	Kedla	160	22	494, 541, 542, 551, 559, 561, 577, 581, 595P, 604, 606, 633, 636, 648, 691, 754, 765, 815, 817, 824, 842, 844, 847, 849, 851, 865, 870, 871, 894, 896, 898, 902, 907, 918, 921, 923, 924, 928, 932, 935, 1045, 1098, 1100
18	Kedla	160	25	564, 616, 858, 878, 880, 1074
19	Kedla	160	27	812, 836, 949, 1005, 1010P, 1039, 1040
20	Kedla	160	29	698, 699, 705, 711, 837, 838, 850, 876, 877, 882, 884, 886, 887, 889, 909, 942
21	Kedla	160	32	495, 548, 549, 550, 712, 713, 715, 716, 717, 718, 798, 814, 834, 867, 993P, 1065, 1066, 1067, 1068, 1071, 1085, 1086, 1087, 1088, 1089, 1091, 1093, 1094, 1095, 1096, 1097,

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				1099, 1111, 1113, 1114, 1115, 1117, 1209
22	Kedla	160	33	535P, 540, 544, 545, 566, 567, 568, 571, 573, 576, 622, 634, 640, 663, 665, 674, 676, 677, 678, 679, 681, 683, 684, 687, 688, 759, 760, 763, 811, 822, 829, 856, 857, 860, 930, 1004, 1051, 1144, 1145, 1146, 1150
23	Kedla	160	34	1106, 1107, 1109, 1110, 1163, 1165, 1168, 1170, 1171
24	Kedla	160	39	642, 653, 655, 656, 662, 667, 671, 672, 1108
25	Kedla	160	42	1006, 1123, 1124, 1125, 1128, 1129, 1130, 1131, 1133, 1138, 1140
26	Kedla	160	43	706, 840, 848, 874, 875, 881, 883, 885, 911, 1118
27	Kedla	160	45	493, 558, 562, 563, 613, 624, 625, 628, 629, 1105
28	Kedla	160	46	552, 553, 555, 651, 709, 839, 913, 1042, 1043
29	Kedla	160	47	808, 925, 933, 995, 997
30	Kedla	160	48	585, 586, 1143, 1147, 1149, 1153, 1154, 1156, 1157, 1158, 1159, 1160, 1161, 1208
31	Kedla	160	49	492, 538, 557, 578, 579, 580, 582, 602, 603, 607, 614, 615, 621, 623, 632, 637, 641, 644, 647, 649, 657, 666, 693, 755, 766P, 816, 828, 843, 845, 846, 852, 866, 872, 891, 893, 895, 899, 900, 903, 908, 914, 916, 922, 929, 931, 1046, 1101
32	Kedla	160	50	1141
33	Kedla	160	52	588P, 831
34	Kedla	160	53	1058


Break up of type of land:-

SN	Type of Land	Total Land (in Ha)
1	Forest Land	61.55
2	GM JJ	54.74
3	Non Forest Land	72.75

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TOTAL	189.05
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- The total forest land (NF+GM JJ) within the project boundary (116.29 Ha) is part of 168.50 ha. for which Stage-I FC clearance was accorded vide no: 8-55/2003-FC.

Kedla Openacst Project (2.0 MTPA): Details of Mineable Reserves and OB Removal:

Year	Coal Production (MT)	OB Removal (Mcum)	Stripping Ratio (cum/te)
1.	1	1.73	1.73
2.	2	3.35	1.68
3.	2	4.02	2.01
4.	2	4.87	2.43
5.	2	4.87	2.43
6.	2	4.87	2.43
7.	1.5	3.65	2.43
8.	0.75	1.82	2.43
Total	13.25	29.17	2.20


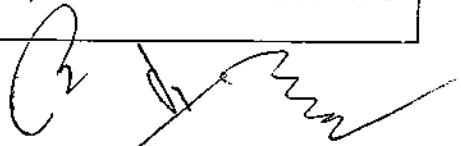
Capital Expenditure:

The total capital investment of the project is approximately Rs. 101.12 Cr.

Cost of environmental cost 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	:	The CO, Mandu (Ramgarh) vide letter no. : 2275, dated 27.12.2022 has mentioned the plot no. of the project is recorded as "Jungle Jhari" in R.S. Khatiyan & Register II.
3	DFO Wildlife	:	DFO, Wildlife Hazaribag vide letter no. : 163, dated 24.01.2023 certified that the proposed project site is outside Eco Sensitive Zone of Hazaribag Wildlife Sanctuary.
4	DFO Forest Distance	:	DFO, Ramgarh Forest Division vide letter no. : 74, dated 10.01.2023 certified that the distance of demarcated forest is 0 (Zero) meter from project site.
5	Mine Plan Approval	:	Ref. No. CS/BM/517/2022/290, dated 24.08.2022.
6	Stege -I clearance	:	Stage- I clearance issued by MoEF&CC, Govt. of India vide F. No. 8-

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		55/2003-FC, dated 23.08.2004.
7	Terms of Reference (ToR)	Violation Terms of Reference issued by MoEF&CC, Govt. of India vide F.No. 23-244/2018-IA(III) (V), dated 22.10.2019.

During the discussion with the Project Authorities the following were the observations of the Committee :

- i. ToR was granted by MoEF&CC, Govt. of India vide letter dated 22.10.2019. This being a violation project it was considered by MoEF&CC in view of notification no. S.O. 804(E), dated 14.03.2017.
- ii. ToR was granted for a mine lease area of 1048.49 Ha for a production capacity of 1.00/1.35 MTPA.
- iii. Now the Project Authorities have applied for amendment in above ToRs granted by MoEF&CC by reducing the ML area to 189.05 Ha for a production capacity of 2.0 MTPA.

After considering the above facts, the Committee is of the view that the PAs are to obtain clarification from MoEF&CC, Govt. of India with regard to :

- a. Whether SEIAA/SEAC can take up this amendment proposal where the original ToR of an area 1048.49 Ha (as coal mining projects of ML area upto 500 Ha are to be considered at State Level).
- b. In case this project is taken up for amendment of ToR, whether notification no. S.O. 804(E), dated 14.03.2017 is still applicable on the project or the 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 shall be applicable ?

The Project will be taken up for consideration in accordance with the clarification / directives provided by MoEF&CC, Govt. of India.

4. Jharia CBM BLOCK – I of M/s BHARAT COKING COAL LIMITED (BCCL), Village : Dhandabar, Parsia, Karitand, Bardhubhi, Jatudih, Debagram, Tehsil : Dhanbad, District : Dhanbad, Jharkhand.

(Proposal no.: SIA/JH/IND2/265252/2022).

Project Category: B2 – Application for Environment Clearance

EC Application for: CBM exploration activity in Jharia CBM Block. It has been proposed to drill 5 (five) core holes and 5 (five) test wells in the exploration phase in two years. The total land required is estimated to be 70.74 Ha at 5 different patches of land within 2655 Ha of CBM Block boundary

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Name of the consultant: Central Mine Planning and Design Institute (CMPDI), Ranchi

This is a new project which has been taken for appraisal on 23.05.2023

Project and Location Details :

Sl	Parameter	Details	
1	Project Name	:	Jharia CBM Block-I
2	Lessee	:	Bharat Coking Coal Limited (BCCL)
3	Lease Address	:	Koyla Bhawan, Koyla Nagar, Dhanbad - 826005, Jharkhand
4	Lease Area	:	Ha: 70.74 Acres: 174.80
5	Type of Land	:	Non Forest – BCCL and Private Land
6	Project Cost	:	63.393 Cr
7	EMP Budget	:	Capital: Rs.6,73,000/- Recurring: Rs. Nil
8	CSR / CER Budget	:	Rs. 1.267/- Cr
9	New or Expansion	:	New project
10	Mineable Reserves	:	Cu. M.: Not Applicable Tonnes: Not Applicable
11	Project Life	:	2 years (Exploration Phase)
12	Man Power	:	15
13	Water Requirement	:	15 – 20 m ³ for each core hole and 25 – 35 m ³ for each test hole
14	Water Source	:	Mine Water
15	DG Set / Power	:	62.5 KVA
16	Nearest Water Body	:	Kali Mandir Pond, Karitand
17	Nearest Habitation	:	D M Colony
18	Nearest Rail Station	:	Dhanbad Railway Station
19	Nearest Airport	:	Bokaro
20	Nearest Forest	:	Forest in Jarma Mauja
21	Road & Highways	:	Dhanbad Bokaro Highway

CO-ORDINATES

1	Latitude	:	From: 23°42'00"N	23°47'00"N
2	Longitude	:	From: 86°16'30"E	86°22'30"E

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LAND DETAILS

Sl No.	Mauja Name	Khata No.	Plot No.
1	Dhandabar	1	812 (P)
2	Parasia	17	900(P)
		21	944,927(P),942(P)
		45	945(P)
		16	899(P)
3	Karitand	1	268,270,271
		2	209,210,233,269,276,281
		3	267,278,279,283,295,296,310
		4	261, 262, 263
		5	240, 243, 241, 242, 245, 247, 248, 250, 253, 254, 255, 257, 264
		8	252
		10	284,285,290,292,293,294
		11	272,273,274,275,286,287,288, 289,291,244
		12	218,251, 256,277,280,282,306,307
		14	213,214,215,216,217,219,221,222,223,224,225,226
		15	212
		16	211,220,328,329,266
		17	192,208,249, 246,
		19	259, 265,
		20	227,228, 229, 230, 231, 232, 234, 235, 236, 237, 238, 239,
		23	258, 260
4	Bardubhi	1	861,868,
		2	700,902,903
		3	823,839,863
		4	905,906
		7	817,830,838,840
		10	822
		11	803,852,855,866,876,878,879,881,882,883
		12	766,767,824,825,851
		14	796,797,842,843,845,848,850, 857,858,859,860,864,869
		15	820,826,827,828,829,831,832,847,894,895,896
		16	755,756,775,776,777,780,781,784,785,804,805,806,819,821
		18	846,853,865,867,874
		20	836

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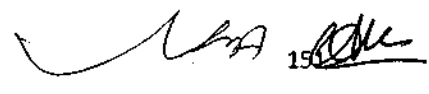

		22	908
		23	761,762,763,854,870,875,880
		24	841,844
		25	363,764,765,779,783,786,787,798,799,800,807,808,809,814, 818,884,885,886,887,888
		26	768,773,774,778,782,789,790,791,849,871,873
		27	792,793
		31	771,772,794,795,801,872,877,889,898,897,899,900,901,972
		34	757,758,904,909
		37	890,891,892,893
		39	833,856
		41	605
		44	633,634,862
		61	760,754, 753,759, 769
		63	788, 837
		64	802
5	Jatudih	13	648(P)
6	Debogram	38	937(P)

STATUTORY CLEARANCES

1	LOI / Lease Docs	:	Under BCCL MINING Leasehold Area under CBA Act 1957 and CMN Act 1972.
2	CO	:	The CO Putki (Dhanbad) vide letter no. 135, dated 27.03.2023 & letter no. 165, dated 13.04.2023 and CO Baghmara (Dhanbad) vide letter no. 425, dated 11.06.2022 mentioned that the plot numbers of the project is not recorded as 'Jungal - Jahri' in Khatian.
3	DFO Wild Life	:	Divisional Forest Officer, Wildlife Hazaribagh vide Letter no. 2547 dated 19.12.2022 certified that the proposed project is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
4	DFO Forest Distance	:	DFO, Dhanbad Forest Division vide letter no. 2821, dated 12.12.2022 certified that the distance of notified forest is more than 250 m from proposed project site.

Land Use

S. No.	Present Land Use Mapping	Patch 1 (in Ha)	Patch 2 (in Ha)	Patch 3 (in Ha)	Patch 4 (in Ha)	Patch 5 (in Ha)	Total
1.	Human Settlements	0.00	6.32	0.00	0.00	0.00	6.32
2.	Vegetation	0.03	29.30	0.00	0.50	0.00	29.83

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3.	Agricultural Land (crop and fallow both)	0.00	10.72	0.09	0.17	0.09	11.07
4.	Wasteland	0.06	23.30	0.00	0.00	0.00	23.36
5.	Surface Water Bodies	0.00	0.16	0.00	0.00	0.00	0.16
Total		0.09	69.80	0.09	0.67	0.09	70.74

ENVIRONMENT MANAGEMENT

Green Belt Development

Plantation over land will be done after completion of drilling activities. The total Green Belt area is proposed in 1 Ha along the periphery of patches that are in BCCL-owned land (in Patch 2 & Patch 4) and gabion plantation along the approach road.

The estimated cost for block plantation work is around Rs. 3, 20, 000/- per hectare and Rs. 2600 approx. for each tree with gabion protection. The total cost for green belt development (including gabion plantation) is approximately Rs.5 lakhs.

For successful enrichment of site area, preference is given to endemic species and mixed culture. The species will be selected carefully from the following groups:

- Fruit bearing tree species.
- Tree species with dense foliage for shade.
- Flowering and ornamental tree species.
- Native species.

Some of the species which will be selected for plantation are Neem tree, Babool, Arjun, Amrud, Banyan tree etc.

Waste Management Plan

- Use of low toxicity chemicals for the preparation of drilling fluid.
- Fuel and chemical storage areas will be paved and suitable bund will be provided to contain emergency spillage.
- Necessary spill prevention measures viz. spill kit will be made available at the hazardous material storage area
- The hazardous waste (waste and used oil) will be managed in accordance with Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016
- Used batteries will be recycled through the vendors supplying lead acid batteries as required under the Batteries (Management & Handling) Rules, 2001.

Water Management Plan

Construction & Closure Phase:

A small quantity of water required for fugitive dust suppression, site preparation/ decommissioning and drinking will be obtained from nearby sources.

Operational Phase:

A waste water storage pit (size 18 m x 18m x 2.5m), having lined with HDPE Sheet, will be provided to collect waste water generated from drilling operations. Drilling fluid from the drilling operations will also be collected in the waste pits and subjected to solar drying. HDPE lining will also cover areas (1m from the pit edge) surrounding the pit so that soil does not get contaminated.

Water based drilling fluids will be used.

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Best practices will be followed during the cementing job and casing so that ground water does not get contaminated.

Minimization of spillage from contaminants such as oil from equipment, drilling mud etc on the soil. In case the spillage takes place, immediate action for their removal will be taken.

Portable bio-toilets will be provided.

Air Quality Management

Construction Phase: Preparation of access roads and drilling sites

Water spraying to suppress fugitive dust generation.

The top soil generated will be kept properly to prevent generation of fugitive dust.

Operation Phase: Drilling at the identified sites

- Timely preventive maintenance servicing of Drilling Machine and DG set will be done. A log book for its maintenance will be kept at the site.
- Water Spraying will be done to suppress fugitive dust generation, particularly on the approach road.
- CPCB emission norms for DG set will be fulfilled.
- Pollution Control Checks will be conducted at 06 monthly intervals for all vehicles used on the site. A record of the same will be maintained.

Closure Phase: Decommissioning / Site Closures

- Water spraying to suppress fugitive dust generation.
- No significant impact on ambient air/noise quality is anticipated beyond the project boundary.

Noise Quality Management

- Various activities will be preferably carried out during daytime
- DG set will be equipped with proper acoustic enclosures to reduce noise
- Min. distance of 100m between drilling sites & nearby habitation will be maintained
- Ear plugs / ear muffs will be provided to the workers at the site
- Ambient Noise Monitoring will be performed at each drilling site
- No significant impact on ambient noise quality is anticipated beyond the project boundary.

Land & Soil Quality

- Top soil (drilling sites and road construction) will be carefully removed and stored, used for land restoration during closure phase.
- Drill Cuttings and return mud may contaminate soil at the drilling site. These waste materials will be stored in HDPE lined impervious pit
- Disposal will be carried out in accordance with Notification dated 30th August 2005 – G.S.R. 546 point No. C "Guidelines" for disposal of Solid wastes, Drill Cutting and Drilling Fluids for Offshore and Onshore Drilling Operation".

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- Portable bio-toilets will be provided.

Biodiversity/ Biological Environment

- No ecologically sensitive area such as National Park, Bird Sanctuary etc. in the immediate vicinity.
- No endangered species in the area.
- Acoustic enclosure to the Generator set for minimizing the impact on ambient noise.

Risks/Hazards Management

Sl. No.	Situation	Actions to be Taken	Required Resources	Responsibility
1	Oil Spills	<ul style="list-style-type: none"> ▪ Supervise actions for stoppage of spillage urgently ▪ Inform nearby BCCL installation. ▪ Oil mixed with water will be separated by using skimmer ▪ Biological methods for cleaning of contaminated soil 	Fire extinguisher & Skimmer	Shift – in – Charge will coordinate with help of other members of the crew.
2.	Fire	<ul style="list-style-type: none"> ▪ Apply fire extinguisher at the site. ▪ Inform nearby BCCL installation. ▪ Inform nearby Fire Station for immediate help. 	Fire extinguisher & Buckets filled with sand	Shift I/Charge <ul style="list-style-type: none"> ▪ At least 2 members of drilling crew must be trained in use of fire extinguishers.
3.	Natural Gas Leakage	<ul style="list-style-type: none"> ▪ Stop the source ▪ Remove worker and provide medical help / artificial respiration. ▪ Provide local exhaust ventilation system. ▪ Provide Personal Protective Equipment to the workers. ▪ Inform nearby BCCL installation for ambulance and required help. 	<ul style="list-style-type: none"> ▪ Gas Detector ▪ Water spraying arrangements. ▪ PPE ▪ Leak Detection and Repair System. 	Shift – in – Charge will coordinate with help from other members of the crew.

Based on the presentation made and information provided, the Committee decided that the proposal for Jharia CBM BLOCK – I of M/s BHARAT COKING COAL LIMITED (BCCL), Village : Dhandabar, Parsia, Karitand, Bardhubhi, Jatudih, Debagram, Tehsil : Dhanbad, District : Dhanbad, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – V alongwith specific conditions :

1. The excess water released during exploration can inundate sensitive arid ecosystems, worsen surface water quality and diminish underground water supplies. Effective

management of the same to be implemented.

- II. Methane form explosive mixture in combination with air. Management plan for same to be implemented such that the explosive mixture is not formed.

5. Expansion of Forging Unit from 18,600 to 1,00,000 TPA and Existing Fabrication & Assembly capacity 13,130 TPA of M/s Ramkrishna Forgings Limited (Unit - VII) at Industrial Area, Village : Dugni, Block : Seraikela, Distt. : Seraikela-Kharsawan, Jharkhand.

(Proposal No : SIA/JH/IND1/426384/2023)

Name of the consultant : Vardan Environet, Gurugram, Haryana.

This is an expansion project which has been taken for appraisal on 23.05.2023.

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 Ramkrishna Forgings Limited (RKFL) (Unit – VII) has made ToR Application vide proposal no. SIA/JH/IND1/426384/2023 dated 17.04.2023 along with Form – 1, copy of Pre – Feasibility Report for undertaking detailed study as per the EIA Notification, 2006 for the above mentioned project. The proposed project activity is listed as S.No. 3(a) Metallurgical Industry, under Category 'B' of the schedule of the EIA Notification, 2006.

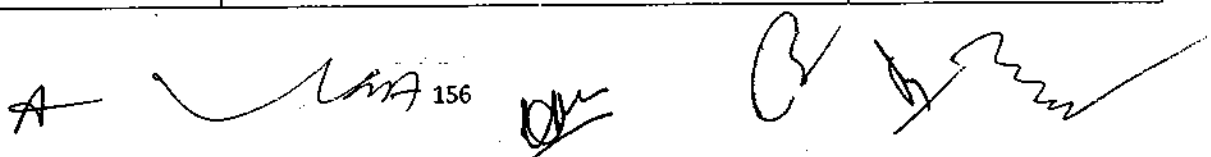
The project of M/s RKFL located at Plot No. 1988, Industrial Area, Village- Dugni, Block- Seraikela, District- Seraikela Kharsawan, State- Jharkhand is for Expansion of Forging Unit from 18,600 to 100,000TPA and existing Fabrication & Assembly capacity of 13,130TPA

1. Environmental site settings:

Sl.No.	Particulars	Details	Remarks
1.	Total Land	9.71 Ha	Land Use: Industrial Land
2.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Total area – 9.71 Ha [Acquired Land: 9.71 Ha]	The land was allotted by JIADA, Adityapur.
3.	Existence of habitation & involvement of R&R,	Project Site: Nil Study Area:	R&R: Not Involved

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Sl.No.	Particulars	Details			Remarks									
	if any	Nearest Habitation	Distance	Direction										
		Dugni Village	0.3km	North West										
4.	Latitude and longitude of all corners of the project site	Point	Latitude	Longitude										
		A	22°45'37.58"N	86° 0'16.44"E										
		B	22°45'34.85"N	86° 0'6.50"E										
		C	2°45'34.79"N	85°59'57.14"E										
		D	2°45'37.52"N	85°59'57.30"E										
		E	2°45'41.81"N	85°59'58.74"E										
		F	2°45'48.70"N	86° 0'1.50"E										
		G	2°45'47.38"N	86° 0'4.35"E										
		H	22°45'42.07"N	86° 0'7.75"E										
		I	22°45'43.52"N	86° 0'11.65"E										
5.	Elevation of the project site	176 meters above mean sea level												
6.	Involvement of Forest Land, if any	No Involvement of Forest Land												
7.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	Project Site: Nil Study Area: <table border="1"> <thead> <tr> <th>Water-body</th> <th>Distance (Km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Sanjay River</td> <td>0.03</td> <td>S</td> </tr> <tr> <td>Kharkai River</td> <td>5.6</td> <td>S</td> </tr> </tbody> </table>			Water-body	Distance (Km)	Direction	Sanjay River	0.03	S	Kharkai River	5.6	S	
Water-body	Distance (Km)	Direction												
Sanjay River	0.03	S												
Kharkai River	5.6	S												
8.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Study area: No existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area List of Reserve and Protected Forest <u>Reserve Forest:</u> No Reserved Forest within 10Km Study Area <u>Protected Forest</u> Chandrapur Protected Forest Banddih Protected Forest Numahanpur Forest etc.												



Land Details :

Khata no.	Plot no.
529	1988

The plant was operating on CTE/ CTO of JSPCB as the project did not attract any conditions as per EIA Notification, 2006. The existing project was accorded with Consent to Establish (CTE) having ref no. JSPCB/HO/RNC/CTE-6642309/2019/678 dated 16.12.2019 from Jharkhand State Pollution Control Board (JSPCB) for the production of 28,300TPA Forged items and 13,130TPA Fabrication & Assembly Parts. Consent to Operate (CTO) was obtained from JSPCB vide ref no. JSPCB/HO/RNC/CTO-9770828/2021/1252 dated 07.10.2021 for the production of 18,600TPA Forged Items and 13,130TPA of Fabrication & Assembly items, valid till 31.03.2023. Now company has submitted online application vide receipt no. 805041957 dated 30.12.2022 on JSPCB portal for renewal of CTO for the production capacity of 18,600TPA Forged Items and 13,130TPA of Fabrication & Assembly items.

Sl. No.	Plant Equipment /Facility	Existing facilities as per CTE vide letter no. JSPCB/HO/RNC/CTE-6642309/2019/678 dated 16.12.2019							
		Total (A+B)		Implemented (A)		Unimplemented (B)		As per CTO	
		Config	Capacity	Config	Capacity	Config	Capacity	Config	Capacity
1.	Kurimoto Line	2000T	13,400 TPA	2000T	13,400 TPA	--	--	2000T	13,400 IPA
2.	Ajax Press Line	3000T	5,200 TPA	3000T	5,200 TPA	--	--	3000T	5,200 TPA
3.	Enomoto 630T Press	--	--	--	--	--	--	--	--
4.	Press Line	--	--	--	--	--	--	--	--
5.	RA Shaft – Press Line	--	--	--	--	--	--	--	--
6.	Upsetter 5" (2 Nos.)	--	--	--	--	--	--	--	--
7.	Upsetter 2.5" (1 Nos.)	--	--	--	--	--	--	--	--
8.	Cold Forging Press	--	--	--	--	--	--	--	--
9.	Cold Forging Press	--	--	--	--	--	--	--	--

Sl. No.	Plant Equipment /Facility	Proposed Units		Final (Existing + Proposed)		Remarks
		Config	Capacity	Config	Capacity	
1.	Kurimoto	--	--	2000T	13,400	

	Line				TPA	Forging Unit of capacity 100,000TPA and Fabrication and Assembly Unit of capacity 13,130TPA
2.	Ajax Press Line	--	--	3000T	5,200 TPA	
3.	Enomoto 630T Press	630T	4,500 TPA	630T	4,500 TPA	
4.	Press Line	6000T	13,700 TPA	6000T	13,700 TPA	
5.	RA Shaft – Press Line	--	13,700 TPA	--	13,700 TPA	
6.	Upsetter 5" (2 Nos.)	--	20,200 TPA	--	20,200 TPA	
7.	Upsetter 2.5" (1 Nos.)	--	4,200 TPA	--	4,200 TPA	
8.	Cold Forging Press	900T	11,400 TPA	900T	11,400 TPA	
9.	Cold Forging Press	1600T	13,700 TPA	1600T	13,700 TPA	

Cold Forging/ Cold Forming by the divided flow method is also proposed, it is a process where a work piece is simultaneously pressed from upper punch and a lower punch allowing the material to flow radically outward into die cavity so as to plastically deform work piece into a tool. This process is typically used for forming rational symmetric components. The work piece and tooling are at room temperature (i.e. they are not pre-heated as in case of hot forging).

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

Sl. No	Raw Materials	Quantity required per annum			Source	Distance from Site (kms.)	Mode of Transportation
		Existing	Proposed	Total			
1.	Steel Billets/ rounds/ various grades of steel	37,813 TPA	101,883 TPA	1,39,696 TPA	Jharkhand	100	Trucks
2.	Propane Gas	930 TPA	5700 TPA	7030 TPA	Kolkata	350	Trucks
3.	Oil for	3kl/ TPA	13kl/ TPA	16kl/ TPA	Gurugram	1400	Trucks

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Sl. No	Raw Materials	Quantity required per annum			Source	Distance from Site (kms.)	Mode of Transportation
		Existing	Proposed	Total			
	Quenching	Annum	Annum	Annum			

The existing water requirement of the plant is 170KLD. The total water requirement after the proposed expansion is 370KLD. The water is sourced from ground water through bore well and the NOC for the same has been obtained from CGWA vide NOC No. CGWA/NOC/IND/ORIG/2021/12728 dated 30.07.2021.

The existing power requirement of 10.0MW is sourced from Jamshedpur Utilities & Service Company Limited (JUSCO). After the proposed expansion the total power requirement will be 14.0MW which will be sourced from the same.

Total Capital Cost of the project after the proposed expansion is envisaged as Rs. 795.30 Crores including the existing project cost of Rs. 219.99 Crores. The employment generation of the proposed expansion is 1100 Nos.

Name of the EIA consultant: M/s Vardan Environet [S.No. 37 in List of ACOs, Certificate no. NABET/EIA/2326/RA 0284, valid up to 04.05.2026].

Proposed Terms of Reference Baseline data collection period: 1st March 2023 to 31st May 2023 as below :

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
A. Air				
a. Meteorological parameters	Temp., Relative Humidity, Wind Speed, Wind Direction, Rainfall	1 Location	Hourly sampling for three months	Secondary data from IMD, New Delhi for the nearest IMD station
b. AAQ parameters	PM10, PM2.5, SO2, NOx, CO	8 Locations	24-hourly sampling, twice a week for 12 weeks	Monitoring Network: 1 in the nearby village 2 in Down Wind, 2 in Upwind and 2 in Crosswind and 1 in the project site (Covering all sensitive receptors also)
B. Noise	Leq (Day & Night), Lmax (Day &	8 Locations	24-hourly sampling, twice a week	Monitoring Network: 1 at the project site, 1

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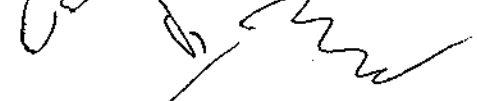
Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
	Night), Lmin (Day & Night)		a week (working and non-working day) for 3 months	locations in villages close to project site, 4 near Dense Habitation, 1 near highway and 1 near to PF (All the sensitive receptors covered)
C. Water				
a. Surface water quality parameters	pH, EC, NO3, Na, K, Fe, Al, Ca, Cl, Cr, Mg, TDS, TSS, DO, SO4, F, BOD, COD, Zn, Cu, Mn, Cd, Turbidity, Odour	8 Locations	Once in a day in each month for one season	Sampling from Rivers, Ponds within the 10km Study Area
b. Ground water quality parameters	pH, Ca, Cl, Mg, TDS, SO4, F, NO3, Fe, Al, Zn, Cu, Mn, Cd, Pb, Hg, EC, Turbidity, Odour	8 Locations	Once in a day in each month for one season	One grab sample per location
D. Land				
a. Soil quality	pH, Conductivity, Soil Texture, Water Holding Capacity, Cl, Ca, Na, K, Organic matter, Mg, N, Zn, Mn, Phosphorus, Pb, Cd, Cr, Cu.	8 Locations	Once in a day in each month for one season	One sample from project site and one from Agriculture land, forest area, near water body and nearby villages.
E. Biological				
a. Aquatic	Species of Plants and Avifauna	10 km Radius study area	one season	Secondary data has been collected from Government offices, NGOs, published

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
				literature
b. Terrestrial	Species of Plants and Animals	10 km Radius study area	one season	Secondary data has been collected from Government offices, NGOs, published literature
<i>F. Socio-economic parameters</i>	Demographic details and Occupational details	10 km Radius study area	One Season	Secondary data from census records, statistical hard books, Topo sheets, health records and relevant official records available with Govt. agencies.

It has been informed by the project proponent that no court case, litigation or show cause is pending against the unit.

STATUTORY CLEARANCES :

1	LOI/Lease docs	:	Land lease deed from JIADA dated 09.10.2018.
2	CO	:	The CO, Seraikela vide letter no. 123, dated 01.02.2019 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, Dalma Elephant Project vide letter no. 1166, dated 19.11.2019 certified that the proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary.
4	DFO Forest Distance	:	DFO, Seraikela Forest Division vide letter no. 2278, dated 03.11.2018 certified that the distance of notified forest is 500 meters from project site.
5	Consent to Establish (CTE)	:	CTE issued by JSPCB vide Ref. no. JSPCB/HO/RNC/CTE-6642309 /2019/678, dated 16.12.2019.
6	Consent to Operate	:	CTO granted by JSPCB vide :

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	(CTO)		i. Ref. no. JSPCB/HO/RNC/CTO-7556246/2020/1181, dated 28.07.2020. ii. Ref. no. JSPCB/HO/RNC/CTO-9770828/2021/1252, dated 07.10.2021.
7	CGWA	:	No Objection Certificate (NOC) for Ground Water Abstraction vide NOC No. : CGWA/NOC/IND/ORIG/2021/12728, dated 30.07.2021.
8	CTO (Renewal)	:	The application of CTO renewal has been submitted to JSPCB on 30.12.2022.

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 22, 23, 24, 25 & 26.05.2023, the Committee recommends for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure VI.

6. Purnadih Stone Deposit of M/s Jharkhand Stone Works (Prop. : Shri Arunoday Kumar), Village : Purnadih, Thana no. : 214, Thana : Nawalsahi, Distt.: Koderma, Jharkhand (1.21 Ha).

(Proposal no. : SIA/JH/MIN/429624 /2023)

Applied Area : 3.00 ACRES (1.21 Ha.)

Project Category : B2 – Application for Environment Clearance

EC Application for : 13,050 cum / year (max)

Overburden : 3,820 Cum. during plan period.

DG Set : 20 KVA

Crusher- Not proposed

Name of the consultant : Sathi Planners Private Limited, Ranchi , Jharkhand.

This is a new project which has been taken for appraisal on 23.05. 2023

Project and Location Details :


Sl.	Parameter	Details
1	Project Name	Purnadih Stone Deposit Project Type – Stone Mine
2	Lessee:	Jharkhand Stone Works Proprietor- Shri Arunoday Kumar,
3	Lease Address	Village- Purnadih, Thana No.- 214, Thana- Nawalsahi, District- Koderma , Jharkhand

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4	Lease Area	:	Ha: 1.21	Acres: 3.00
5	Type of Land	:	Non-Forest – Raiyati Land	
6	Project Cost	:	Rs. 91.85 Lakhs	
7	EMP Budget	:	Capital: Rs. 7.00 Lakhs	Recurring: Rs. 1.59 Lakhs/ year
8	CSR / CER Budget	:	NA	
9	New or Expansion	:	New	
10	Mineable Reserves	:	Cu.M.: 1,12,000 Cu. M.	Tonnes: 3,02,400 Tons
11	Mine Life	:	8.58 years say 9 Years	
12	Manpower	:	24 Person	
13	Water Requirement	:	16.96 KLD (Drinking:0.36 KLD, Dust Suppression: 9.6 KLD, Plantation: 7 KLD)	
14	Water Source	:	Water will be sourced from near by Abandon Mine and Water Tankers, to be purchased locally for Dust Suppression, Plantation, Drinking and Domestic Consumption.	
15	DG Set / power	:	Nil. 20 KVA DG Set proposed	
16	Crusher	:	Not Applicable	
17	Nearest Water Body	:	Hurrahi River – 0.80 km- West	
18	Nearest Habitation	:	Village – Purnadih	
19	Nearest Rail Station	:	Maheshpur Halt Railway station – 3.65 km – NW	
20	Nearest Airport	:	Ranchi International Airport – 139 km-SW	
21	Nearest Forest	:	More than 250 m, as per forest division. Letter no – 1337 Dt- 03.04.2023	
22	Road & Highways	:	SH-13- 0.60 Km in NW	

CO-ORDINATES

POINT	LATITUDE	LONGITUDE
1	24°27'24.78" N	85°44'10.01" E
2	24°27'25.64" N	85°44'06.76" E
3	24°27'27.35" N	85°44'04.81" E
4	24°27'27.50" N	85°44'04.25" E
5	24°27'27.65" N	85°44'03.47" E
6	24°27'28.80" N	85°44'04.01" E
7	24°27'29.35" N	85°44'05.50" E
8	24°27'29.49" N	85°44'05.94" E
9	24°27'28.35" N	85°44'09.56" E
10	24°27'27.34" N	85°44'09.36" E
11	24°27'27.41" N	85°44'08.85" E
12	24°27'26.88" N	85°44'08.76" E
13	24°27'26.98" N	85°44'08.28" E

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14	24°27'26.16" N	85°44'07.87" E
15	24°27'25.54" N	85°44'09.73" E
16	24°27'25.25" N	85°44'10.00" E

LAND DETAILS

The lease area is situated near Purnadih

Khata No.	Plot No.
150	2752 (P), 2949 (P) & 2950 (P)

STATUTORY CLEARANCES

1	LOI/Lease docs	: The Letter of Intent (LoI) has been issued by DMO, Koderma vide Memo No.- 834/M, dated 27.04.2023.
2	CO Certificate	: CO, Domchanch vide Letter No.- 339, dated- 16.03.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyon & Register II.
3	DMO Certificate	: DMO Koderma vide memo no. 939/M, dated- 12.05.2023 certified that two other mining lease area (3.40 acre & 1.00 acre) exists within 500 m radius from proposed project site & Total lease area is 7.40 acre.
4	DFO Wild Life	: DFO, Wildlife Hazaribagh vide letter no.- 694, Dated- 05.04.2023 certified that the proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.
5	DFO Territorial	: DFO, Koderma Forest Division vide letter no.- 1337, dated- 03.04.2023 certified that the distance of reserved / protected forest is 305 m from proposed project site.
6	DSR	: The DC – cum – District Magistrate, Koderma vide letter no. 955/M, dated 15.05.2023 has informed that this project is part of District Survey Report (DSR) of Koderma district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	: Gram Sabha conducted on 27.03.2023.
8	Mine Plan Approval	: DMO, Koderma vide memo no. – 950/M, dated 13.05.2023

WORKING DETAILS

1	Mining Method	: Opencast Mechanized Mining
2	Quarry Area	: Plan period - 0.52 Ha. Conceptual stage – 0.78 Ha.
3	Waste Generation	: Plan Period : 3,820 Cum. Conceptual Stage – 3,820 Cum.
4	Stripping Ratio	: 1:0.07

(Handwritten signatures and initials)

5	Working Days	:	300 days/year
6	Benches: size & No	:	5m x 5m, No. of benches -6
7	Elevation of Mine	:	424 – 422 AMSL
8	Ground Level Elevation	:	423 AMSL
9	Ultimate Working Depth	:	399 AMSL
10	Water Table	:	390 AMSL and
11	Topography of Mine	:	Gently sloping area
12	Explosive Requirement	:	7.4 kg slurry explosives /day
13	Diesel/Fuel requirement	:	HSD – 665 liters / day (199.5 KL/year)



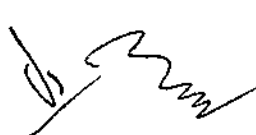
PRODUCTION DETAILS

Summary Of Yearwise of Production						
Years	Production In Cum/Year	Production in Cum/Day	O.B Production in Cum/Year	Production In Tons/Year	Prod. In Tons. /Day	Bench RL in meters
1st	11139	37.13	1264	30075	100.25	366-365.5 (O.B. 365.5 – 361 (Stor
2nd	13050	43.5	1450	35235	117.45	366-365.5 (O.B. 365.5 – 361 (Stor
3rd	9954	33.18	1106	26876	89.59	366-365.5 (O.B. 365.5-361 (Ston
4 th	10672	35.57	-	28814	96.05	361-356 (Stone
5 th	11139	37.13	-	30075	100.25	361-356 (Stone
Total	55954		3820	151075		Depth – 10 M

LAND USE

Existing Land Use pattern

Category	Area in Ha.
Excavated Area	0.25
Office	0.00
Dump	0.00
Road	0.00
Garland Drain	0.00
Safety Zone	0.00
Settling Tank	0.00
Unutilied	0.96
Total	1.21

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Land Use Pattern during Current Plan Period :

Category	Area in Ha.
Mining Area	0.52
Excavated area	0.25
Office	0.01
Road	0.02
Safety Zone	0.29
Garland Drain/ Safety Zone/ Settling Tank	0.02
Unutilized	0.10
Total	1.21

Land Use Pattern after Life of the Mine:

Category	Area in Ha.
Mining Area+ Road	0.79 (water body)
Safety Zone+Office	0.30 (plantation)
Garland Drain/ Safety Zone/ Settling Tank	0.02
Unutilized	0.10 (Plantation)
Total	1.21

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION	Area/Length	No of Trees
1	Green Belt & Other reclaimed area	: 0.40 Ha	1000
2	Haul /Approach Road	: 0.60 Km.	400 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 3,820 cum during the plan period. OB will be utilized for internal mine road construction & berm along the approach road construction & maintenance, so there is no requirement of waste dumping Plan for this mining plan.

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Water Pollution Control Measures:

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

Air and Noise Pollution Control Measures:

1. Dust suppression measures like spraying / sprinkling of water to keep the surface wet.
2. Overloading of the 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 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 Purnadih Stone Deposit of M/s Jharkhand Stone Works (Prop. : Shri Arunoday Kumar), Village : Purnadih, Thana no. : 214, Thana : Nawalsahi, Distt.: Koderma, Jharkhand (1.21 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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7. Purnadih Stone Deposit of M/s New Jharkhand Stone Mines (Partners : Shri Sanjay Kumar Ray & Shri Narayan Saw), Village : Purnadih, Thana no. : 214, Thana : Nawalsahi, Distt.: Koderma, Jharkhand (0.404 Ha).

(Proposal no. : SIA/JH/MIN/429081 /2023

Applied Area :1.00 ACRES (0.404 Ha.)

Project Category :B2 – Application for Environment Clearance

EC Application for : 7040 cum / year (max)

Overburden : 3,135 Cum. during plan period.

DG Set : 20 KVA

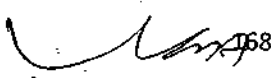

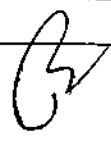


Crusher- Not proposed

Name of the consultant : Sathi Planners Private Limited, Ranchi, Jharkhand.

This is a new project which has been taken for appraisal on 23.05. 2023

Project and Location Details :

Sl.	Parameter	Details
1	Project Name	: Purnadih Stone Deposit Project Type – Stone Mine
2	Lessee:	: M/S New Jharkhand Stone Mines Partners- 1. Shri Sanjay Kumar Ray 2. Shri Narayan Saw
3	Lease Address	: Village- Purnadih, Thana No.- 214, Thana- Nawalsahi, District- Koderma , Jharkhand
4	Lease Area	: Ha: 0.404 Acres: 1.00
5	Type of Land	: Non-Forest – Raiyati Land
6	Project Cost	: 67.87 Lakhs
7	EMP Budget	: Capital: Rs. 4.03 Lakhs Recurring: Rs. 1.39 Lakhs/year
8	CSR / CER Budget	: NA
9	New or Expansion	: New
10	Mineable Reserves	: Cu.M.: 35,145 Cu. M. Tonnes: 94,892 Tons
11	Mine Life	: 5 Years
12	Manpower	: 21 Person
13	Water Requirement	: 11.71 KLD (Drinking:0.32 KLD, Dust Suppression: 7.36 KLD, Plantation: 4.03 KLD
14	Water Source	: Water will be sourced from near by Abandon Mine and Water Tankers, to be purchased locally for Dust Suppression, Plantation, Drinking and Domestic Consumption.
15	DG Set / power	: Nil. 20 KVA DG Set proposed
16	Crusher	: Not Applicable
17	Nearest Water	: Hurrahi River – 1 km- West

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	Body	
18	Nearest Habitation	: Village – Purnadih
19	Nearest Rail Station	: Maheshpur Halt Railway station – 4.70 km – NW
20	Nearest Airport	: Ranchi International Airport – 138 km-SW
21	Nearest Forest	: More than 250 m, as per forest division. Letter no – 1111 Dt- 15.03.2023
22	Road & Highways	: SH-13-0.46 Km in NE

CO-ORDINATES

POINT	LATITUDE	LONGITUDE
1	24°27'34.71" N	85°43'51.79" E
2	24°27'35.16" N	85°43'51.73" E
3	24°27'35.67" N	85°43'50.37" E
4	24°27'35.88" N	85°43'50.40" E
5	24°27'36.06" N	85°43'49.84" E
6	24°27'36.55" N	85°43'50.01" E
7	24°27'36.50" N	85°43'50.28" E
8	24°27'38.64" N	85°43'50.78" E
9	24°27'38.60" N	85°43'51.12" E
10	24°27'38.10" N	85°43'51.74" E
11	24°27'37.64" N	85°43'51.65" E
12	24°27'37.66" N	85°43'52.13" E
13	24°27'37.03" N	85°43'52.05" E
14	24°27'36.78" N	85°43'51.86" E
15	24°27'36.60" N	85°43'52.01" E
16	24°27'36.01" N	85°43'51.88" E
17	24°27'35.89" N	85°43'52.07" E
18	24°27'35.22" N	85°43'51.87" E
19	24°27'35.00" N	85°43'52.33" E

LAND DETAILS

The lease area is situated near Purnadih

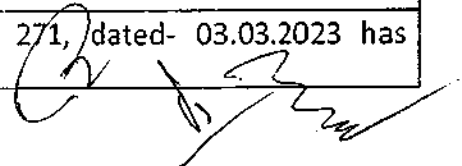
Khata No.	Plot No.
211	947
314	1069, 1070, 1071, 1079, 1080

STATUTORY CLEARANCES

1	LOI/Lease docs	: The Letter of Intent (LoI) has been issued by DMO, Koderma vide Memo No.- 836/M, dated 27.04.2023.
2	CO Certificate	: CO, Domchanch vide Letter No.- 271, dated- 03.03.2023 has

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		mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DMO Certificate	: DMO Koderma vide memo no. 941/M, dated- 12.05.2023 certified that 01 other mining lease area (3.00 acre) exists within 500 m radius from proposed project site & Total lease area is 4.00 acre.
4	DFO Wild Life	: DFO, Wildlife Hazaribagh vide letter no.- 574, Dated- 21.03.2023 certified that the proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.
5	DFO Territorial	: DFO, Koderma Forest Division vide letter no.- 1111, dated- 15.03.2023 certified that the distance of reserved / protected forest is 500 m from proposed project site.
6	DSR	: The DC – cum – District Magistrate, Koderma vide letter no. 955/M, dated 15.05.2023 has informed that this project is part of District Survey Report (DSR) of Koderma district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	: Gram Sabha conducted on 27.03.2023.
8	Mine Plan Approval	: DMO, Koderma vide memo no. 949/M, dated 13.05.2023.

WORKING DETAILS

1	Mining Method	: Opencast Mechanized Mining
2	Quarry Area	: Plan period - 0.18 Ha. Conceptual stage – 0.18 Ha.
3	Waste Generation	: Plan Period : 3,135 Cum. Conceptual Stage –3,135 Cum.
4	Stripping Ratio	: 1:0.09
5	Working Days	: 300 days/year
6	Benches: size & No	: 5m x 5m, No. of benches -4
7	Elevation of Mine	: 429 – 427 AMSL
8	Ground Level Elevation	: 429 AMSL
9	Ultimate Working Depth	: 414 AMSL
10	Water Table	: 402 AMSL and
11	Topography of Mine	: Gently sloping area
12	Explosive Requirement	: 4.93 Kg Slurry explosives/day
13	Diesel/Fuel requirement	: HSD – 590 liters / day (177 KL/year)

PRODUCTION DETAILS

Summary of Yearwise Of Production						
Years	Production In Cum/Year	Production In Cum/Day	O.B Production in Cum. /Year	Production In Tons/Year	Prod. In Tons. /Day	Bench RL in meters
1st	7040	23.5	1650	19008	63.4	372-371 (O.B.) 371-367 (Stone)
2nd	5940	19.8	1485	16038	53.5	372-371 (O.B.) 371-367 (Stone)
3rd	7040	23.5	-	19008	63.4	367-362
4 th	7040	23.5	-	19008	63.4	367-357
5 th	5500	18.3	-	14850	49.5	362-357
Total	32560		3135	87912		Depth - 15 m

LAND USE

Existing Land Use pattern



Category	Area in Ha.
Mining Area	0.020
Office	0.000
Dump	0.000
Road	0.000
Garland Drain	0.000
Safety Zone	0.000
Settling Tank	0.000
Unutilied	0.384
Total	0.404

Land Use Pattern during Current Plan Period :

Category	Area in Ha.
Mining Area	0.180
Road	0.004
Safety Zone	0.200
Garland Drain/ Safety Zone/ Settling Tank	0.020
Total	0.404

Land Use Pattern after Life of the Mine:

Category	Area in Ha.
Mining Area+ Road	0.184 (water body)
Safety Zone	0.200 (plantation)

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Garland Drain/ Safety Zone/ Settling Tank	0.020
Total	0.404

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION	Area/Length	No of Trees
1	Green Belt & Other reclaimed area	: 0.20 Ha	500
2	Haul /Approach Road	: 0.46 Km.	306 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 3,135 cum during the plan period. OB will be utilized for internal mine road construction & berm along the approach road construction & maintenance, so there is no requirement of waste dumping Plan for this mining plan.

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.

- 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 Purnadih Stone Deposit of M/s New Jharkhand Stone Mines (Partners : Shri Sanjay Kumar Ray & Shri Narayan Saw), Village : Purnadih, Thana no. : 214, Thana : Nawalsahi, Distt.: Koderma, Jharkhand (0.404 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

8. Bisodih Stone Deposit of M/s New Jharkhand Stone Mines (Partners : Shri Sanjay Kumar Ray & Shri Narayan Saw), Village : Bisodih, Thana no. : 218, Thana : Nawalsahi, Distt.: Koderma, Jharkhand (1.09 Ha).

(Proposal no. : SIA/JH/MIN/429134 /2023)

Applied Area :2.70 ACRES (1.09 Ha.)

Project Category :B2 – Application for Environment Clearance

EC Application for : 38,380 cum / year (max)

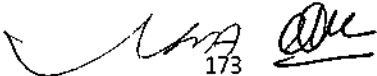

Overburden : 15,682 Cum. during plan period.

DG Set : 20 KVA

Crusher- Not proposed

Name of the consultant : Sathi Planners Private Limited, Ranchi, Jharkhand.

This is a new project which has been taken for appraisal on 23.05.2023

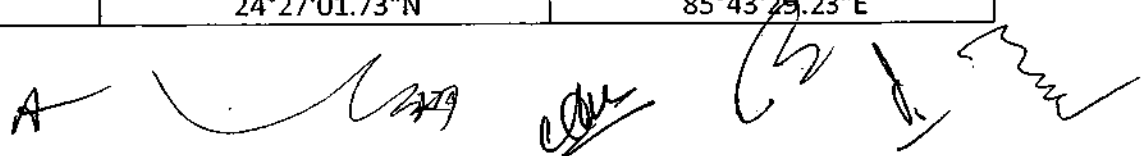
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Project and Location Details :

Sl.	Parameter	Details
1	Project Name	Bisodih Stone Deposit Project Type – Stone Mine
2	Lessee:	M/S New Jharkhand Stone Mines Partners- 3. Shri Sanjay Kumar Ray 4. Shri Narayan Saw
3	Lease Address	Village- Bisodih, Thana No.- 218, Thana- Nawalsahi, District- Koderma , Jharkhand
4	Lease Area	Ha: 1.09 Acres: 2.70
5	Type of Land	Non-Forest – Raiyati Land
6	Project Cost	92.95 Lakhs
7	EMP Budget	Capital: Rs. 5.18 Lakhs Recurring: Rs. 1.54 Lakhs/ year
8	CSR / CER Budget	NA
9	New or Expansion	New
10	Mineable Reserves	Cu.M.: 3,01,958 Tonnes: 8,15,287
11	Mine Life	7.86 or 8 years only.
12	Manpower	33 Person
13	Water Requirement	14.96 KLD (Drinking:0.50 KLD, Dust Suppression: 4.64 KLD, Plantation: 5.18 KLD
14	Water Source	Water will be sourced from near by Abandon Mine and Water Tankers, to be purchased locally for Dust Suppression, Plantation, Drinking and Domestic Consumption.
15	DG Set / power	Nil. 20 KVA DG Set proposed
16	Crusher	Not Applicable
17	Nearest Water Body	Hurrahi Nadi – 1.1 km- East
18	Nearest Habitation	Village - Bisodih
19	Nearest Rail Station	Maheshpur Halt Railway station – 2.80 km – NW
20	Nearest Airport	Ranchi International Airport – 131 km-SW
21	Nearest Forest	More than 250 m, as per forest division. Letter no – 1262 Dt- 29.03.2023
22	Road & Highways	Pakka Road – 0.58 Km in West direction

CO-ORDINATES

Point	Latitude	Longitude
1	24°27'02.05"N	85°43'30.59"E
2	24°27'01.73"N	85°43'29.23"E

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3	24°27'01.74"N	85°43'28.35"E
4	24°27'02.03"N	85°43'26.60"E
5	24°27'05.25"N	85°43'28.43"E
6	24°27'04.21"N	85°43'31.83"E
7	24°27'02.60"N	85°43'31.08"E

LAND DETAILS

The lease area is situated near Bisodih

Khata No.	Plot No.
1	3 (P)

STATUTORY CLEARANCES

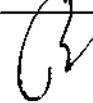
1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Koderma vide Memo No.- 835/M, dated 27.04.2023.
2	CO Certificate	:	CO, Domchanch vide Letter No.- 272, dated- 03.03.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyon & Register II.
3	DMO Certificate	:	DMO Koderma vide memo no. 940/M, dated- 12.05.2023 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.- 573, Dated- 21.03.2023 certified that the proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.
5	DFO Territorial	:	DFO, Koderma Forest Division vide letter no.- 1262, dated- 29.03.2023 certified that the distance of reserved / protected forest is 390 m from proposed project site.
6	DSR	:	The DC – cum – District Magistrate, Koderma vide letter no. 955/M, dated 15.05.2023 has informed that this project is part of District Survey Report (DSR) of Koderma district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	Gram Sabha conducted on 27.03.2023.
8	Mine Plan Approval	:	DMO, Koderma vide memo no. 948/M, dated 13.05.2023.

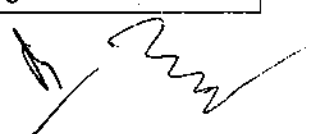
WORKING DETAILS

1	Mining Method	:	Opencast Mechanized Mining
2	Quarry Area	:	Plan period - 0.80 Ha. Conceptual stage - 0.80 Ha.

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3	Waste Generation	:	Plan Period : 15,682 Cum.	Conceptual Stage -15,682 Cum.
4	Stripping Ratio	:	1:0.08	
5	Working Days	:	300 days/year	
6	Benches: size & No	:	5m x 5m, No. of benches -6	
7	Elevation of Mine	:	432 – 430 AMSL	
8	Ground Level Elevation	:	429 AMSL	
9	Ultimate Working Depth	:	405 AMSL	
10	Water Table	:	402 AMSL and	
11	Topography of Mine	:	Gently sloping area	
12	Explosive Requirement	:	23.4 Kg Slurry explosives/day	
13	Diesel/Fuel requirement	:	HSD – 804 liters / day (241.2 KL/year)	

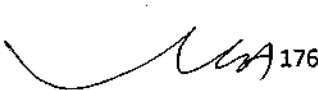


PRODUCTION DETAILS

Years	Production In Cum/Year	O.B Production in cum. /Year	Production In Tons/Year	Bench RL in meters
1st	37832	12122	102146	A-A': 374-373 (O.B) B-B': 373-372 (O.B.) A-A': 373-369 (Stone) B-B': 372 – 368 (Stone)
2nd	37052	3560	100040	B-B'- 373-372 (O.B.) B-B'- 372 -368 (Stone) A-A'- 369-364 (Stone)
3rd	37071	-	100092	A-A'- 369-364 (Stone) B-B'- 368 – 363 (Stone)
4 th	29693	-	80171	B-B'- 368-363 (Stone) A-A'- 364 – 359 (Stone)
5 th	38380	-	103626	A-A'- 364-359(Stone) B-B'- 363 – 358 (Stone)
Total	180028	15682	486076	Depth – 16 m

LAND USE

Existing Land Use pattern

Category	Area in Ha.
Mining Area	0.00
Office	0.00
Dump	0.00
Road	0.00
Garland Drain	0.00

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Safety Zone	0.00
Settling Tank	0.00
Unutilied	1.09
Total	1.09

Land Use Pattern during Current Plan Period :

Category	Area in Ha.
Mining Area	0.80
Road	0.02
Safety Zone	0.26
Garland Drain/ Settling Tank	0.01
Total	1.09

Land Use Pattern after Life of the Mine:

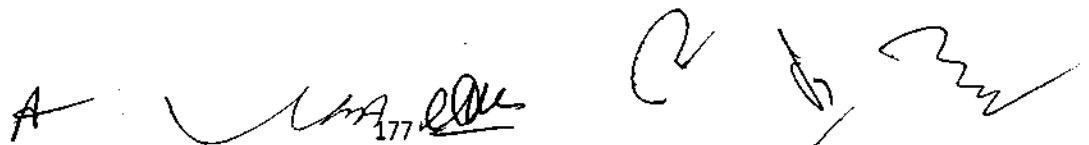
Category	Area in Ha.
Mining Area+ Road	0.82 (water body)
Safety Zone	0.26 (plantation)
Garland Drain/ Safety Zone/ Settling Tank	0.01
Total	1.09

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION	Area/Length	No of Trees
1	Green Belt & Other reclaimed area	: 0.26 Ha	659
2	Haul /Approach Road	: 0.58 Km.	386 Tree 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 15,682 cum during the plan period. OB will be utilized for internal mine road construction & berm along the approach road construction & maintenance, so there is no requirement of waste dumping Plan for this mining plan.

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 :

- 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.

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- 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 Bisodih Stone Deposit of M/s New Jharkhand Stone Mines (Partners : Shri Sanjay Kumar Ray & Shri Narayan Saw), Village : Bisodih, Thana no. : 218, Thana : Nawalsahi, Distt.: Koderma, Jharkhand (1.09 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

9. Gasedag Stone Deposit of M/s Maa Vindhyavasini Stone Mines (Partners : (i) Nishant Kumar Agarwal (ii) Arvind Kumar Singh (iii) Sanjay Bharti) , Village : Gasedag, Thana no. : 105, Thana : Ranka, Distt.: Garhwa, Jharkhand (2.59 Ha).

(Proposal no. : SIA/JH/MIN /429903 /2023)

Applied Area : 6.40 ACRES (2.59 Ha.)

Project Category : B2 – Application for Environment Clearance

EC Application for : 3,33,225 cum / year (max)

Overburden : 33,114 Cum. during plan period.

DG Set : 20 KVA

Crusher- Not proposed

Name of the consultant : Sathi Planners Private Limited, Ranchi, Jharkhand.

This is a new project which has been taken for appraisal on 23.05.2023

Project and Location Details :

Sl.	Parameter	Details	
1	Project Name	Gasedag Stone Deposit Project Type -- Stone Mine	
2	Lessee:	Maa Vindhyavasini Stone Mines Partner- 1. Nishant Kumar Agarwal, 2. Arvind Kumar Singh, 3. Sanjay Bharti,	
3	Lease Address	Village- Gasedag, Thana No.- 105, Thana- Ranka, District- Garhwa, Jharkhand	
4	Lease Area	Ha: 2.59	Acres: 6.40
5	Type of Land	Non-Forest – Raiyati Land	
6	Project Cost	: 187.85 Lakhs	
7	EMP Budget	Capital: Rs. 9.25 Lakhs	Recurring: Rs. 1.74 Lakhs/ year

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8	CSR / CER Budget	:	NA
9	New or Expansion	:	New
10	Mineable Reserves	:	Cu.M.: 1568322 Tonnes: 560115
11	Mine Life	:	4.70 Say 5 Years
12	Manpower	:	44 Person
13	Water Requirement	:	15.91 KLD (Drinking:0.66 KLD, Dust Suppression: 6 KLD, Plantation: 9.25 KLD
14	Water Source	:	Water will be sourced from near by Abandon Mine and Water Tankers, to be purchased locally for Dust Suppression, Plantation, Drinking and Domestic Consumption.
15	DG Set / power	:	Nil. 20 KVA DG Set proposed
16	Crusher	:	Not Applicable
17	Nearest Water Body	:	Hathu Nadi –2 km- West
18	Nearest Habitation	:	Village - Gasedag
19	Nearest Rail Station	:	Garhwa Railway station – 31.16 km – NW
20	Nearest Airport	:	Birsa Munda Airport – 142.15205 km-SE
21	Nearest Forest	:	More than 250 m, as per forest division. Letter no – 843 Dt- 27.03.2023
22	Road & Highways	:	Pakka Road – 0.15 Km –E

CO-ORDINATES

Point	Latitude	Longitude
1	23°53'45.68" N	83°51'31.66" E
2	23°53'46.45" N	83°51'29.10" E
3	23°53'46.93" N	83°51'27.18" E
4	23°53'45.25" N	83°51'26.99" E
5	23°53'44.83" N	83°51'28.18" E
6	23°53'43.85" N	83°51'25.41" E
7	23°53'44.90" N	83°51'25.10" E
8	23°53'45.91" N	83°51'25.15" E
9	23°53'46.37" N	83°51'24.66" E
10	23°53'47.34" N	83°51'25.11" E
11	23°53'49.91" N	83°51'24.63" E
12	23°53'50.07" N	83°51'25.21" E
13	23°53'49.34" N	83°51'25.57" E
14	23°53'47.88" N	83°51'27.23" E
15	23°53'49.31" N	83°51'27.79" E
16	23°53'48.55" N	83°51'30.13" E
17	23°53'48.98" N	83°51'30.36" E
18	23°53'49.09" N	83°51'29.96" E

19	23°53'51.08" N	83°51'30.71" E
20	23°53'50.27" N	83°51'32.25" E
21	23°53'49.84" N	83°51'32.22" E
22	23°53'49.46" N	83°51'33.77" E
23	23°53'47.17" N	83°51'33.01" E
24	23°53'47.42" N	83°51'32.25" E
25	23°53'46.45" N	83°51'31.94" E





LAND DETAILS

The lease area is situated near Village Gasedag

Khata No.	Plot No.
20	2019, 2024 & 2036
19	2022
174	1980 (P)
175	1981(P)

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued DMO, Garhwa vide letter no. 582/M, dated 06.05.2023.
2	CO	:	The CO, Ranka vide letter no. : 151, dated 29.03.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar & Register II.
3	DMO	:	DMO, Garhwa vide memo no. 647/M, dated 19.05.2023 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	Deputy Director, Palamu Tiger Project, North Division, Medininagar vide letter no. : 431, dated 31.03.2023 certified that the proposed project site is outside Eco Sensitive Zone of Palamu Wildlife Sanctuary, Betla National Park and Mahuadanr Wolf Sanctuary.
5	DFO Forest Distance	:	DFO, Garhwa South Forest Division vide letter no. : 843, dated 27.03.2023 certified that the reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC – cum – District Magistrate, Garhwa vide letter no. 629/M, dated 16.05.2023 has informed that this project is part of District Survey Report (DSR) of Garhwa district and accordingly necessary action with regard to Environmental Clearance can be taken.

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7	Gram Sabha	:	BDO, Ranka vide letter no. 273, dated 28.03.2023 informed that Gram Sabha conducted on 28.03.2023.
8	Mine Plan Approval	:	AMO, Garhwa vide memo no. 650, dated 19.05.2023.

WORKING DETAILS

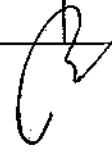
1	Mining Method	:	Opencast Mechanized Mining
2	Quarry Area	:	Plan period – 1.81 Ha. Conceptual stage – 1.81 Ha.
3	Waste Generation	:	Plan Period : 33,114 Cum. Conceptual Stage –33,114 Cum.
4	Stripping Ratio	:	1:0.06
5	Working Days	:	300 days/year
6	Benches: size & No	:	5m x 5m, No. of benches -5
7	Elevation of Mine	:	428 – 426 AMSL
8	Ground Level Elevation	:	424 AMSL
9	Ultimate Working Depth	:	406 AMSL
10	Water Table	:	390 AMSL and
11	Topography of Mine	:	Gently sloping area
12	Explosive Requirement	:	141.57 slurry explosives /day
13	Diesel/Fuel requirement	:	HSD – 1556liters / day (466.8 KL/year)

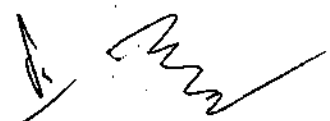
PRODUCTION DETAILS

Years	Production In Cum/Year	O.B Production in Tonnes/Year	Production In Tons/Year	R.L. (in metre)
1st	119009	19584	333225	C-C'- 376-375 (O.B.) B-B'- 372-371 (O.B.) C-C'-375-371 (Stone) B-B'- 371-367(Stone) C-C'- 371-366 (Stone)
2nd	116555	-	326354	C-C'- 371-366 (Stone) B-B'- 367-362 (Stone) C-C'- 366-361 (Stone) B-B'- 362-357 (Stone) C-C'- 361-356 (Stone)

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3rd	116603	13530	326488	A-A'- 373-372 (Stone)
4th	80520	-	225456	A-A'- 368-363 (Stone) A-A'- 363-358 (Stone)
5th	81400	-	227920	A-A'- 358-353 (Stone) A-A'- 353 - 348 (Stone)
Total	514087	33114	1439443	Depth - 29 metre

LAND USE

Existing Land Use pattern



Category	Area in Ha.
Mining Area	0.00
Office	0.00
Dump	0.00
Crusher	0.00
Road	0.00
Garland Drain	0.00
Safety Zone	
Settling Tank	
Unutilized	2.59
Total	2.59

Land Use Pattern during Current Plan Period :

Category	Area in Ha.
Mining Area	1.81
Road	0.10
Safety Zone	0.66
Garland Drain	0.02
Settling Tank	
Unutilized	0.00
Total	2.59

Land Use Pattern after Life of the Mine:

Category	Area in Ha.	Land Usage at Conceptual Stage
Mining Area	1.81	Water Body
Road	0.10	Water Body
Safety Zone	0.66	Plantation

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Garland Drain	0.02	--
Settling Tank		
Unutilized	0.00	-
Total	2.59	-

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION	Area/Length	No of Trees
1	Green Belt & Other reclaimed area	: 0.66 Ha	1650
2	Haul /Approach Road	: 0.15 Km.	200 Tree both side approach road (Two Row Plantation)

- 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 33,114 cum during the plan period. OB will be utilized for internal mine road construction & berm along the approach road construction & maintenance, so there is no requirement of waste dumping Plan for this mining plan.

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.
- 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.

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 Gasedag Stone Deposit of M/s Maa Vindhya Vasini Stone Mines (Partners : (i) Nishant Kumar Agarwal (ii) Arvind Kumar Singh (iii) Sanjay Bharti) , Village : Gasedag, Thana no. : 105, Thana : Ranka, Distt.: Garhwa, Jharkhand (2.59 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

10. Nawada Stone Deposit of M/s Mahadev Stone Works (Partners : (i) Shri Suresh Prasad Yadav (ii) Shri Amit Gautam (iii) Shri Surendra Prasad Gupta), Village : Nawada, Thana no. : 213, Thana : Nawalsahi, Distt.: Koderma, Jharkhand (0.765 Ha).

(Proposal no. : SIA/JH/MIN/ 429527 /2023)

Applied Area :1.89 ACRES (0.765 Ha.)

Project Category :B2 – Application for Environment Clearance

EC Application for : 8,407 cum / year (max)

Overburden :6,129 Cum. during plan period.

DG Set : 20 KVA

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Crusher- Not proposed

Name of the consultant : Sathi Planners Private Limited, Ranchi, Jharkhand.

This is a new project which has been taken for appraisal on 23.05.2023

Project and Location Details :

Sl.	Parameter	Details
1	Project Name	Nawada Stone Deposit Project Type – Stone Mine
2	Lessee:	M/S Mahadev Stone Works Partners:- 1. Shri Suresh Prasad Yadav 2. Shri Amit Gautam 3. Shri Surendra Prasad Gupta
3	Lease Address	Village-Nawada, Thana No.- 213, Thana- Nawalsahi, District- Koderma , Jharkhand
4	Lease Area	Ha: 0.765 Acres: 1.89
5	Type of Land	Non-Forest – Raiyati Land
6	Project Cost	Rs. 75.4 Lakhs
7	EMP Budget	Capital: Rs. 4.725 Lakhs Recurring: Rs. 1.44 Lakhs/ year
8	CSR / CER Budget	NA
9	New or Expansion	New
10	Mineable Reserves	Cu.M.: 79,589 Cu. M. Tonnes: 2,14,891 Tons
11	Mine Life	9.46 Years say 10 years
12	Manpower	23 Person
13	Water Requirement	12.76 KLD (Drinking:0.345 KLD, Dust Suppression: 7.68 KLD, Plantation: 4.73 KLD
14	Water Source	Water will be sourced from near by Abandon Mine and Water Tankers, to be purchased locally for Dust Suppression, Plantation, Drinking and Domestic Consumption.
15	DG Set / power	Nil. 20 KVA DG Set proposed
16	Crusher	Not Applicable
17	Nearest Water Body	Hurrahi Nadi – 1.30 km- West
18	Nearest Habitation	Village – Nawada
19	Nearest Rail Station	Maheshpur Halt Railway station – 4.89 km – NW
20	Nearest Airport	Ranchi International Airport – 138.15 km-S
21	Nearest Forest	More than 250 m, as per forest division. Letter no – 1630 Dt- 21.04.2023

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22	Road & Highways	:	SH-13-0.48 Km in NE
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CO-ORDINATES

Point	Latitude	Longitude
1	24°27'00.34" N	85°44'41.02" E
2	24°27'03.28" N	85°44'37.66" E
3	24°27'04.41" N	85°44'37.85" E
4	24°27'04.63" N	85°44'38.08" E
5	24°27'03.02" N	85°44'40.71" E
6	24°27'04.20" N	85°44'41.49" E
7	24°27'03.18" N	85°44'43.22" E

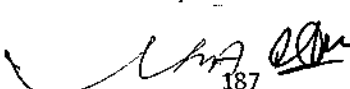



LAND DETAILS

The lease area is situated near Nawada

Khata No.	Plot No.
27	780
16	781 (P)

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Koderma vide memo no. 843/M, dated 28.04.2023.
2	CO	:	The CO, Domchanch vide letter no. : 232, dated 23.02.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyan & Register II.
3	DMO	:	DMO, Koderma vide memo no. 911/M, dated 10.05.2023 certified that 03 other mining lease area (1.08 acre, 0.64 ½ acre & 1.07 acre) exists within 500 m radius from proposed project site and total area is 4.68 ½ acre.
4	DFO Wildlife	:	DFO, Wildlife Hazaribag vide letter no. : 575, dated 21.03.2023 certified that the proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Koderma Forest Division vide letter no. : 1630, dated 21.04.2023 certified that the distance of reserved / protected forest is 390 m from proposed project site.
6	DSR	:	The DC-cum-District Magistrate, Koderma vide letter no. 955/M, dated 15.05.2023 has informed that this project is part of District Survey Report (DSR) of Koderma district and accordingly necessary

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		action with regard to Environmental Clearance can be taken.
7	Gram Sabha	: Gram Sabha conducted on 23.04.2023.
8	Mine Plan Approval	: DMO, Koderma vide letter no. 959, dated 16.05.2023.

WORKING DETAILS

1	Mining Method	: Opencast Mechanized Mining
2	Quarry Area	: Plan period - 0.480 Ha. Conceptual stage – 0.480 Ha.
3	Waste Generation	: Plan Period : 6,129 Cum. Conceptual Stage –6,129 Cum.
4	Stripping Ratio	: 1:0.14
5	Working Days	: 300 days/year
6	Benches: size & No	: 5m x 5m, No. of benches -5
7	Elevation of Mine	: 428 – 426 AMSL
8	Ground Level Elevation	: 426 AMSL
9	Ultimate Working Depth	: 407 AMSL
10	Water Table	: 402 AMSL and
11	Topography of Mine	: Gently sloping area
12	Explosive Requirement	: 4.93 kg slurry explosives /day
13	Diesel/Fuel requirement	: HSD – 604 liters / day (181.2 KL/year)

PRODUCTION DETAILS

Summary Of Yearwise of Production						
Years	Production In Cum/Year	Production In Cum/Day	O.B Production in Cum /Year	Production In Tons/Year	Prod. In Tons. /Day	Bench RL in meters
1st	8043	26.81	2034	21716	72.39	371- 369 (O.B.) 370-365
2nd	8379	27.93	2268	22623	75.41	370-369 (O.B.) 369-365
3rd	8384	27.95	1827	22637	75.46	370-369 (O.B.) 369-361
4 th	8407	28.02	-	22699	151.12	366-360
5 th	8379	27.93	-	22623	75.41	365-360
Total	41592		6129	112298		Depth – 11 m

LAND USE

Existing Land Use pattern

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Category	Area in Ha.
Mining Area	0.000
Office	0.000
Dump	0.000
Road	0.000
Garland Drain	0.00
Safety Zone	
Settling Tank	
Unutilied	0.765
Total	0.765

Land Use Pattern for current Plan Period of five Years :

Category	Area in Ha.
Mining Area	0.480
Road	0.002
Safety Zone	0.250
Garland Drain./ Settling Tank	0.033
Unutilied	0.00
Total	0.765

Land Use Pattern after Life of the Mine:

Category	Area in Ha.
Mining Area + Road	0.482 (Water Body)
Safety Zone	0.250 (Plantation)
Garland Drain./ Settling Tank	0.033
Total	0.765

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION	Area/Length	No of Trees
1	Green Belt & Other reclaimed area	: 0.250 Ha	625
2	Haul /Approach Road	: 0.48 Km.	320 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

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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 6,129 cum during the plan period. OB will be utilized for internal mine road construction & berm along the approach road construction & maintenance, so there is no requirement of waste dumping Plan for this mining plan.

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 :

- 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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- 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 Nawada Stone Deposit of M/s Mahadev Stone Works (Partners : (i) Shri Suresh Prasad Yadav (ii) Shri Amit Gautam (iii) Shri Surendra Prasad Gupta), Village : Nawada, Thana no. : 213, Thana : Nawalsahi, Distt.: Koderma, Jharkhand (0.765 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

Day 3 : May 24th, 2023 [Wednesday]

Consideration of Proposals

1. Brahmadiha Coal Mine for production of 0.50 MTPA Normative Coal through Opencast mining method with total excavation of 22.982 MCum of M/s The Andhra Pradesh Mineral Development Corporation Limited (APMDC), Village : Bhorandiha, Bishwasdih, Budhiadih, Chunika & Tikodih, Tehsil & Distt. : Giridih, Jharkhand (105.153 Ha).




(Proposal No. : SIA/JH /CMIN /418968 /2023).

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

This is a new project which has been taken for appraisal on 24.05.2023.

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 96th meeting held on 16-19.08.2022 and SEIAA, Jharkhand has approved the TORs in 97th meeting held on 25th & 26th August, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2022-23/2621/2022/236, date 02.09.2022. The final EIA / EMP submitted by PP to SEIAA on 17.05.2023 and which was forwarded to SEAC on 18.05.2023.

The proposal of M/s Andhra Pradesh Mineral Development Corporation Limited is for production of 0.5 MTPA (peak 0.75 MTPA) coal through Opencast mining method with total excavation of 22.982 MCum. Total mine lease area is spread over 105.153 Ha and it is located in Village: Bhorandiha, Bishwasdih, Budhiadih, Chunika & Tikodih, Tehsil & Distt. : Giridih, Jharkhand. The total project cost is Rs. 90 Crores. Capital cost of Environment Management Plan is Rs. 18.88 Crores and recurring cost is Rs. 2.14 Crores. Total budget earmarked for Public Hearing compliances is Rs. 1.71 Crores.

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The coal block (named Brahmadiha Coal Mine) was earlier allocated to M/s Castron Technologies Ltd. in 1997. The EC was obtained for this coal block vide F. No. J-110015/14/2002-IA.II(M) on 12.03.2004, later on it was transferred in the name of M/s. Castron Mining Ltd. vide F. No. J-110015/14/2002-IA.II(M) on 09.12.2009. The coal block was de-allocated in September 2014 as per the judgment of Hon'ble Supreme Court. Now the block (named Brahmadiha Coal Mine) has been allotted to M/s Andhra Pradesh Mineral Development Corporation Limited (APMDC) for sale of Coal under the provisions of the Coal Mines (Special Provisions) Act 2015.

After allocation of the coal block, APMDC desired to obtain transfer of EC from MoEF&CC. Accordingly, application for transfer of EC online in PARIVESH portal vide proposal no. IA/JH/CMIN/209448/2021. The proposal was deliberated in the MoEF&CC and concluded that the validity of EC dated 12th March, 2004 has been expired and EC is no more valid and therefore cannot be transferred. Also, the MoEF&CC directed to apply fresh proposal of Environment Clearance as per EIA Notification, 2006 and its amendments therein i.e., under Category B as per EIA Notification, 2006 (the area of project is less than 500 ha) to State Authority

The Environmental Public Hearing for this project was completed on 16.11.2022 at Town Hall, Vitti Bazar, Giridih under the Chairmanship of Additional Collector, Giridih in the presence of Environmental Officer, JSPCB Regional Office, Hazaribagh and Consulting Engineer, JSPCB Head Office, Ranchi. The paper notification about the public hearing was issued in Prabhat Kabar, Times of India newspapers on 14.10.2022 and 15.10.2022.

Salient features of the Project :

Project Name	Brahmadiha Coal Mine		
Location of Mine Site	Villages – Bhorandiha, Bishwasdih, Budhiadih, Chunjka & Tikodih, Tehsil & District – Giridih, State – Jharkhand		
Mining Lease Area	Total Lease area: 105.153 Ha		
Type of Land	Private Land	Govt. Land	Total
	56.990 Ha	48.163 Ha	105.153 Ha
Coordinates	24°08'19" to 24°09'18" N 86°19'12" to 86°19'53" E		
Mine Lease Area Located in Toposheet/OSM no.	72L/8		
Minerals of mine	Coal		
Total Geological reserves	5.56 MT		
Total Mineable reserves	2.215 MT		
Extractable reserves	1.92 MT		
Life of mine	6 years		

(Handwritten signatures and initials are present below the table)

Proposed production of mine	0.5 MTPA
Method of mining	Shovel and Dumper Combination for Open Cast Mining of Coal
No. of working days	300 days and 3 shifts per day
Water demand	Make-up Water requirement is about 327 KLD.
Sources of water	7 KLD water will be used for drinking and sourced from Borewell. 320 KLD water will be used for other processes and sourced from Mine Pit Water. Permission for both the above obtained from CGWA vide NOC No. CGWA/NOC/MIN/ORIG/2022/14517, Dt. 10.02.2022.
Power requirement	A total of 11 KV will be required for the proposed activity. Electrical power requirement for the proposed Mining Plant shall be met from proposed 132/11 KV substation located in Giridih. Power supply to MRS shall be made by extension at proposed 33/11 KV sub-station and through 3 km 33 KV double circuit line overhead line with wolf conductor up to Main Receiving Station.
Manpower	200
Nearest railway station	Giridih Railway Station, 3.2 Km, NE.
Nearest State Highway/ Nationalhighway	SH13 is at 1.0 km in NE. Metalled Road connects to Burhidih (Budiadiah) to Biswasdih passes through the mine lease.
Nearest airport	Birsa Munda Airport, Ranchi is about 140 Km in SW direction.
Seismic zone	Zone II, as per Seismic Map of India
Project Cost	Rs. 90 Crores

Land Details:

Mouza	Khata no.	Plot no.
Chunjka	5, 7, 22, 30, 33 and 54	913P to 917P, 918 to 932, 933P, 1213, 1223 and 1232
Budhiadiah	1 to 15, 17, 19 to 24, 26, 27, 30, 37 to 42, 44, 46, 51, 52, 65, 150 and 162	402P, 407P, 409P, 410, 411, 412P, 413 to 417, 418P, 419P, 426P, 427P, 774, 775P, 776, 777P, 778, 779P, 780P, 783P, 784 to 791, 792P, 793 to 935, 936P to 939P, 940 to 945, 946P, 947P, 1048P, 1110P, 1111P and 1112 to 1207

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Bhorandiha	6, 8, 10, 13, 19, 20, 34, 37, 39 to 43, 46, 47, 50, 72, 77, 82, 83, 103, 128, 140, 143, 145, 179, 189, 191, 193 and 197	704P to 708P, 709, 725P, 726, 727, 728P, 730P, 836P, 839P, 840P, 852P, 858P, 859P, 860 to 863, 864P, 865, 866P, 871P, 872P, 873 to 875, 876 P to 880 P, 881 to 897, 898 P, 899 P and 932
Bishwasdih	1 to 4, 6, 8, 10 to 14, 17, 20, 23, 25, 26, 29, 30, 32, 34, 36, 38, 42, 44, 45, 47, 49, 50, 56, 57, 63, 64, 71, 73 and 103	1, 2, 3P, 4 to 59, 60P to 62P, 63, 64P, 66P, 67, 68P, 106P, 107 to 110, 111P, 112 to 136, 137P to 139P, 140 to 150, 151P to 153P, 164P, 165P, 166, 167, 168P, 169, 170, 171P, 176P, 333P, 334P, 336P, 337P, 338 to 344, 345P, 346P, 347, 348P, 368P and 370P
Tikodih	1 to 5, 7, 8, 10, 11, 13 to 17, 19, 20, 22, 24 to 30, 33 to 35, 37, 39, 40, 43, 44, 46 to 48, 50 to 52, 57, 59, 63, 71, 81 and 84	1 to 103, 104P, 105P, 106 to 123, 124P, 125 to 158, 159P, 160, 161, 162P, 163, 164P, 165P, 166, 167, 168P, 169, 198P, 200P, 201P, 203P, 204, 205, 206P, 219P to 221P, 234P, 249P, 250P, 252P, 253 to 255, 256P, 257, 258, 259P, 261P, 262P, 263, 264, 265P, 280P, 281 to 283, 284P, 285 to 293 and 294P to 298P.

Year Wise tentative Topsoil and OB generation :

Year of operation	Calendar Year	Total (OB + Top Soil) in MM ³	OB in MM ³	Topsoil in MM ³
Year-1	2021-22	0.50	0.38	0.12
Year-2	2022-23	1.41	1.22	0.19
Year-3	2023-24	5.00	4.73	0.27
Year-4	2024-25	5.00	4.65	0.35
Year-5	2025-26	5.00	5.00	0.00
Year-6	2026-27	2.55	2.55	0.00
Total		19.46	18.53	0.93

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Re-Handling Schedule:

Year	Operation Year	OB Mcum
3rd Year	2023-24	1.00
4th Year	2024-25	0.91
Total		1.91

Proposed Production Schedule: Stripping Ratio

Proposed Production Schedule						
Year of operation	Calendar Year	Coal Production (MT)			OB (MM3)	SR
		UG	OC	Total		
Year-1	2021-22	-	-	-	0.50	-
Year-2	2022-23	-	0.15	0.15	1.41	9.40
Year-3	2023-24	-	0.50	0.50	5.00	10.00
Year-4	2024-25	-	0.50	0.50	5.00	10.00
Year-5	2025-26	-	0.50	0.50	5.00	10.00
Year-6	2026-27	-	0.27	0.27	2.55	9.44
Total		-	1.92	1.92	19.46	10.14

Water Requirement:

Description	Make-up Water (KLD)	Recycled Water	Total Requirement	Source
Dust suppression in mine and haul road	143	-	143	Mine Pit
Drinking & domestic	7	-	7	Bore Well
Greenbelt development	122	5	127	Mine Pit & STP
Vehicle & Equipment Washing	25	45	70	Mine Pit & ETP
Evaporation & Other Losses	30	-	30	Mine Pit
Total	327	45	379	

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Existing Land Use Pattern (Ha):

S. No.	Name of the village	Area in Acres				Total
		Private		Government		
		Raiyati	Bakasht	GMK	GMA	
1	Tikodih	30.643	0.530	7.025	0.710	38.908
2	Bishwasdih	25.700	0.230	26.012	0.000	51.942
3	Budhiadih	62.908	0.000	71.252	3.640	137.800
4	Chunjka	11.929	0.000	3.420	0.000	15.349
5	Bhorandiha	7.478	1.405	6.533	0.420	15.836
Total in acres		138.658	2.165	113.632	5.384	259.835
Sub-total in Ha.		56.114	0.876	45.986	2.177	105.153
Total in Ha.		56.990		48.163		105.153

Proposed Land Use Pattern:

S. No.	Type	Land Use (Ha)		
		Proposed	End of Life	Usage at end of mine closure
1.	Excavation Area	76.6130	--	
	Backfilled Area	--	58.311	Greenbelt/Plantation
	Excavated Void		18.302	Water Reservoir
2.	Topsoil Dump.	1.700	1.700	Greenbelt/Plantation
3.	Safety Zone	6.660	6.660	Greenbelt/Plantation
4.	Road Diversion	0.97	0.97	Road for public use
5.	Settling Pond	0.15	0.15	--
6.	Infrastructure area	1.4800	1.4800	--
7.	Garland Drains	0.65	0.65	--
8.	Green Belt.	9.110	9.110	Greenbelt/Plantation
9.	Undisturbed	7.8200	7.8200	--
Total		105.153	105.153	

- Overburden generated till 2nd year will be dumped in the temporary external dump in the northern part of the project boundary. Dumping in the external dump will continue till 2nd Year

over an area of about 5.928 Ha. and height of the dump is about 20m. from the surface level. Concurrent backfilling will commence from 3rd year onwards.

- As per hydrogeological report Groundwater table occurs at 278 mRL (amsl) and intersection will occur for mining operations below that. It is envisaged that mining in 1st year itself will intersect the ground water table and dewatering will be required. CGWA permission for dewatering and fresh water for domestic use has been obtained vide NOC number CGWA/NOC/MIN/ORIG /2022/14517 dated 10-02-2022.

Statutory Clearances :

1	Lease / Land docs	:	The proposed land documents is certified by the concerned Circle Officer, Giridih Sadar vide letter 453, dated 19.04.2022
2	CO	:	The CO, Giridih Sadar vide letter no. 453 dated 19.04.2022 has certified that the Khatiyan was mutilated resulting in non legibility of some plots. Other plots are clarified as Tand / Parti Kadim / Dhan Khet etc. in Khatiyan. None of the plots are mentioned as "Jungle Jhari"
3	DC-cum- District Magistrate, Giridih	:	In absence of non availability of Khatiyan / Revenue record for rest of the plots, DC-cum- District Magistrate, Giridih has given a certificate vide letter no. 1522/रा०, dated 18.07.2022 that if any part of land belongs to forest land / jangal jhari in future the project proponent is bound to follow the direction of Forest (Conservation) Act, 1980. This certificate was based on the directives of Revenue, Registration and Land Reforms, Deptt., Govt. of Jharkand issued vide letter no. 05/संभू० लातेहार (विविध)-181 /2018(छाया संचिका)4792/रा०रांची, दिनांक 04.12.2018.
4	DFO Wild Life	:	DFO, Wildlife Hazaribag vide letter no. 915, dated 23.05.2022 certified that the National Park & Sanctuary is not within 10 km from project site and proposed project is not situated in any ESZ.
5	DFO Forest Distance	:	DFO, Giridih East Division vide letter no. 1631 dated 23.05.2022 certified that the distance of reserved / protected forest is more than 250 m from the project site.
6	CGWA	:	Central Ground Water Authority has issued vide NOC no. : CGWA/NOC/MIN/ORIG/2022/14517 dated 10.02.2022

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7	Vesting order	:	Ministry of Coal, Govt. of India has given a Vesting Order no. NA-104/13/2020-NA, dated 02.03.2021.
8	Public Hearing	:	JSPCB vide Ref. no. B-109, dated 17.01.2023 informed that Public Hearing conducted on 16.11.2022.
9	Tree Cutting Permission	:	DFO, Giridih vide registration no. ACK591814INS dated 13.05.2023 granted permission for tree cutting for 379 trees.
10	Mine Plan Approval	:	Ministry of Coal, vide letter no. JHJH007/APP00228/2022 dated 03.05.2023 granted in-principle approval of mining and mine closure plan (first modification).

Based on the presentation made and information provided, the Committee decided that the proposal for Brahmadiha Coal Mine for production of 0.50 MTPA Normative Coal through Opencast mining method with total excavation of 22.982 MCum of M/s The Andhra Pradesh Mineral Development Corporation Limited (APMDC), Village : Bhorandiha, Bishwasdih, Budhiadih, Chunika & Tikodih, Tehsil & Distt. : Giridih, Jharkhand (105.153 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – III alongwith specific condition :

- I. Copy of the approved Site Specific Wildlife Conservation Plan (SSWCP) is to be submitted to SEIAA/SEAC immediately after its approval by the competent authority.
- II. Project Proponent will ensure that a safety barrier of 45 m on both side of the road passing within ML area will be maintained and no mining activity will be carried out in the safety barrier. After getting the permission for diversion of road from the competent authority, the copy of the permission for diversion shall be submitted to SEIAA/SEAC, Jharkhand alongwith the 06 monthly compliance report.
- III. Mining activities in the above zone of safety barrier can be undertaken after diversion of the road is fully implemented.
- IV. The Project Authorities must ensure Offset of conventional energy requirement of not less than 2% by installation of solar panel. Overall conservation of not less than 20% is to be ensured by use of efficient energy measures.

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2. Phutkadih Stone Deposit of M/s Jharkhand Stone Works (Partners : Shri. Radha Nath Soren & Shri Somar Nayak), Village : Phutkadih, Thana : Peterwar, Distt. : Bokaro, Jharkhand (1.319 Ha).

(Proposal No. : SIA/JH /MIN /429701 /2023).

Applied Area : 3.26 Acres (1.319 Ha)
 Project Category : B2 – Application for Environment Clearance
 EC Application for : Total Excavation - Stone – 173 TPD
 Annual Production – 18582m³/52030 TPA
 Gritty soil 2817 m³ in life of mine (5 years).
 DG Set - Not proposed
 Crusher - Not proposed

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

This is a new project which has been taken for appraisal on 24.05.2023

PROJECT and LOCATION Details:

Sl.	Parameter	Details	
1	Project Name	: Phutkadih Stone Deposit	
2	Lessee:	: M/s Jharkhand Stone Works Partners- Shri. Radha Nath Soren & Shri Somar Nayak	
3	Lease Address	: Village- Phutkadih, P.S.- Petarwar, District- Bokaro, State- Jharkhand.	
4	Lease Area	: Ha: 1.319	Acres: 3.26
5	Type of Land	: Non-Forest – Rayati Land	
6	Project Cost	: Rs. 102.79 Lakhs	
7	EMP Budget	: Capital: Rs. 15.09 Lakhs	Recurring: Rs. 1.8 Lakhs/ year Monitoring cost: Rs. 0.60 Lakhs/year
8	CSR / CER Budget	: Rs. 2.03 Lakhs	
9	New or Expansion	: New	
10	Mineable Reserves	: 92887 cum.	Tonnes: 260086
11	Mine Life	: 5 years only	
12	Manpower	: 31 Person	
13	Water Requirement	: 6.674 KLD (Drinking: 2.48 KLD, Dust Suppression & Plantation: 4.194 KLD)	
14	Water Source	: Supply with authorized Tankers	
15	DG Set / power	: Not Proposed/Not Applicable	
16	Crusher	: Not proposed/Not Applicable	
17	Nearest Water Body	: Khanjo River at 7.54 Km. (NE) Damodar river at 6.25 Km. (SW) Tenughat Dam – 5.10 km (NW) Garga Reservoir – 8.03 km (SE)	
18	Nearest Habitation	: Mayapur - 1.02 Km SE	

19	Nearest Railway Station	:	Bokaro Thermal Railway Station 10.65 km (NE)
20	Nearest Airport	:	Birsa Munda Airport, Ranchi 69.23 km (SW)
21	Nearest Forest	:	No PF/RF present within 10 km
22	Road & Highways	:	NH 23 - 4.76 km (NE)

CO-ORDINATES

1	Latitude	:	From 23°41'22.06" N	To 23°41'26.22" N
2	Longitude	:	From 85° 52' 11.15" E	To 85° 52' 17.55"E

LAND DETAILS

Khata No.	Plot No.	Area In Acres
25	459	3.26

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Bokaro vide memo no. 2955/Khanan, dated 31.10.2019.
2	CO	:	The CO, Petarwar vide memo no. : 327, dated 24.04.2019 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar.
3	DMO	:	DMO, Bokaro vide memo no. 246/Khanan, dated 25.01.2020 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wildlife	:	DFO, Wildlife Hazaribag vide letter no. : 1391, dated 20.07.2019 certified that the proposed project site is outside Eco Sensitive Zone of Topchanchi Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Bokaro vide memo no. : 1648, dated 29.05.2019 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The project is mentioned in District Survey Report (DSR) of District Bokaro in page no. 64 (Sl. No. 05).

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7	Gram Sabha	:	Pradhan, Ulgada vide letter no. 304, dated 27.01.2022 informed that Gram Sabha conducted on 27.01.2022.
8	Mine Plan Approval	:	AMO, Deputy Director of Mines Office, Dhanbad Circle, Dhanbad vide memo no. 14/DDM, Dhanbad, dated 21.01.2020.

WORKING DETAILS

1	Mining Method	:	Opencast Semi-Mechanized Mining
2	Quarry Area	:	0.844 ha (Plan Period) Life of Mine – 0.844 ha
3	Waste Generation	:	Gritty Soil - 2817 cum (plan period) Life of Mine – Gritty Soil - 2817 cum
4	Stripping Ratio	:	53:1 (T:m3)
5	Working Days	:	300 days/year
6	Bench: size & No	:	6m x 6m
7	Elevation of Mine (Maximum)	:	In 304 m MSL
8	Elevation of Mine (Minimum)	:	In 294 m MSL
9	Ultimate Working Depth	:	In 268 m MSL
10	Water Table	:	In 252 m MSL
11	Topography of Mine	:	Gently sloping and Undulating
12	Explosive Requirement	:	Slurry – 3.50 kg/day
13	Diesel/Fuel requirement	:	Diesel - 50 liter/day

PRODUCTION DETAILS

Year	Production of Stone in Tonnes per Annum	Gritty Soil removable in cum for 5 years
1 st	52030	985
2 nd	52021	890
3 rd	52019	942
4 th	52017	00
5 th	51999	00
Total	260086	2817

LAND USE

Type of land use	Existing in ha	During Plan Period in ha.	During Conceptual Period in ha
Quarry	Nil	0.844	0.844 (As Reservoir)*
Safety Zone (developed as greenbelt)	0.475	0.475	0.475
Approach roads	0.001	Merged within quarry	-
Area unused	0.843	Nil	-
Total	1.319	1.319	1.319

ENVIRONMENT MANAGEMENT

Green Belt Development

Sl.	Location	Area/Length	No of Trees
1	Safety Zone	0.475 Ha	1188
2	Other Reclaimed Area	0.000	000
3	Haul /Approach Road	0.75 Km	500 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 in form of gritty soil 2817 Cu.M. during the life of Mine. There is no dumping after the commencement of mining activities and no backfilling after the end of mine.

Water Pollution Control Measures:

- Negligible impact envisaged on surface water and ground water due to mining, as no discharge of effluents or intersection of ground water.
- No major surface water body within 1 km radius of the project site.



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- Post-project the quarry area will serve as a reservoir, which will be a source of water for the nearby areas.
- Garland drains shall be developed to divert storm water flowing into the mine pit.

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 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 Phutkadih Stone Deposit of M/s Jharkhand Stone Works, Village : Phutkadih, Thana : Peterwar, Distt. : Bokaro, Jharkhand (1.319 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.



3. Utasara Stone Deposit of M/s Vishwakarma Stone Work (Prop. : Shri Sahadeo Saw), Village : Utasara, Thana : Peterwar, Distt. : Bokaro, Jharkhand (1.66 Ha).

(Proposal No. : SIA/JH /MIN /429746 /2023).

Applied Area : 4.11 Acres (1.66 Ha)
 Project Category : B2 – Application for Environment Clearance
 EC Application for : Total Excavation - Stone – 355 TPD
 Annual Production – 38015m³/106442 TPA
 Gritty soil 5124 m³ in life of mine (5 years).
 DG Set - Not proposed
 Crusher - Not proposed

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

This is a new project which has been taken for appraisal on 24.05.2023

PROJECT and LOCATION Details:

Sl.	Parameter	Details
1	Project Name	: Utasara Stone Deposit
2	Lessee:	: M/s Vishwakarma Stone Work, Proprietor- Shri. Sahadeo Saw
3	Lease Address	: Mouza-Utasara, Thana No.-35, P.S. Petarwar, District Bokaro, State- Jharkhand
4	Lease Area	: Ha: 1.66 Acres: 4.11
5	Type of Land	: Non-Forest – Rayati Land
6	Project Cost	: Rs. 102.97 Lakhs
7	EMP Budget	: Capital: Rs. 15.33 Lakhs Recurring: Rs. 1.5 Lakhs/ year Monitoring cost: Rs. 0.90 Lakhs/year
8	CSR / CER Budget	: Rs. 2.06 Lakhs
9	New or Expansion	: New
10	Mineable Reserves	: 171605 cum. Tonnes: 531978
11	Mine Life	: 5 years only
12	Manpower	: 34 Person
13	Water Requirement	: 7.54 KLD (Drinking: 2.72KLD, Dust Suppression & Plantation: 4.82 KLD)
14	Water Source	: Through Tankers (having valid permission)
15	DG Set / power	: Not Proposed/Not Applicable
16	Crusher	: Not proposed/Not Applicable
17	Nearest Water Body	: Khanjo River at 4.56 Km. SE Damodar river at 7.92 Km. NW Tenuaghat Reservoir at 6.18 Km NW
18	Nearest Habitation	: Gopalpur (Utasara) 0.23 Km W
19	Nearest Railway	: Bokaro Thermal Railway Station 12.78 km (N)

(Handwritten signatures and initials)

	Station		
20	Nearest Airport	:	Birsa Munda Airport, Ranchi 68.90 km (SW)
21	Nearest Forest	:	PF Absent PF Absent
22	Road & Highways	:	NH-23 (2.33 Km SE) MDR (0.23 Km SW)

CO-ORDINATES

1	Latitude	:	From 23°40'10.95" N	To 23°40'16.10" N
2	Longitude	:	From 85°52'50.55" E	To 85° 52' 56.57" E

LAND DETAILS

Khata No.	Plot No.	Area In Acres
50	1115, 1116, 1117 & 1118	4.11

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Bokaro vide memo no. 2954/Khanan, dated 31.10.2019.
2	CO	:	The CO, Petarwar vide letter no. : 457, dated 18.06.2019 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar & Register II.
3	DMO	:	DMO, Bokaro vide memo no. 3032/Khanan, dated 09.11.2019 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wildlife	:	DFO, Wildlife Hazaribag vide letter no. : 1390, dated 20.07.2019 certified that the proposed project site is outside Eco Sensitive Zone of Topchanchi Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Bokaro vide memo no. : 1980, dated 22.06.2019 certified that the distance of reserved / protected forest is 260 m from proposed project site.
6	DSR	:	The project is mentioned in District Survey Report (DSR) of District Bokaro in page no. 63 (Sl. No. 02).

7	Gram Sabha	:	Mukhiya, Utasara vide letter no. 05, dated 05.07.2019 informed that Gram Sabha conducted on 05.07.2019.
8	Mine Plan Approval	:	AMO, Deputy Director of Mines Office, Dhanbad Circle, Dhanbad vide memo no. 07/DDM, Dhanbad, dated 09.01.2020.

WORKING DETAILS

1	Mining Method	:	Opencast Semi-Mechanized Mining
2	Quarry Area	:	1.24 ha (Plan Period) Life of Mine – 1.24 ha
3	Waste Generation	:	Gritty Soil - 5124 cum (plan period) Life of Mine – Gritty Soil - 5124 cum
4	Stripping Ratio	:	35:1 (T:m3)
5	Working Days	:	300 days/year
6	Benches: size & No	:	6m x 6m
7	Elevation of Mine (Maximum)	:	In 335 m MSL
8	Elevation of Mine (Minimum)	:	In 330 m MSL
9	Ultimate Working Depth	:	In 299 m MSL
10	Water Table	:	In 283 m MSL
11	Topography of Mine	:	Gently sloping and Undulating
12	Explosive Requirement	:	Slurry – 72 kg/day
13	Diesel/Fuel requirement	:	Diesel - 50 liter/day

PRODUCTION DETAILS

Year	Production of Stone in Tonnes per Annum	Gritty Soil removable in cum for 5 years
1 st	106442	3024
2 nd	106399	00
3 rd	106408	825
4 th	106397	00
5 th	106332	1275
Total	531978	5124

LAND USE

Type of land use	Existing in ha	During Plan Period in ha.	During Conceptual Period in ha
Quarry	Nil	1.24	1.24 (As Reservoir)*
Safety Zone (developed as greenbelt)	0.420	0.42	0.42
Approach roads	0.003	-	-
Area unused	1.237	Nil	-
Total	1.66	1.66	1.66

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION	Area/Length	No of Trees
1	Safety Zone	: 0.42 Ha	1050
2	Other Reclaimed Area	: 0.000	000
3	Haul /Approach Road	: 0.24 Km	160 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 in form of gritty soil 5124 Cu.M. during the life of Mine. The total removal soil will be backfilled within exhausted quarry.

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.

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- 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 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 Utasara Stone Deposit of M/s Vishwakarma Stone Work (Prop. : Shri Sahadeo Saw), Village : Utasara, Thana : Peterwar, Distt. : Bokaro, Jharkhand (1.66 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure - I.

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4. Armo Stone Deposit of M/s Khusboo Stone Mines (Shri Ratan Lal Yadav), Village : Armo, Tehsil : Bermo, Distt. : Bokaro, Jharkhand (0.615 Ha).

(Proposal No. : SIA/JH /MIN /429596 /2023).

Applied Area : 1.52 Acres (0.615 Ha)

Project Category : B2 – Application for Environment Clearance

EC Application for : Total Excavation - Stone – 508 TPD

Annual Production – 4289m³/12010TPA

Gritty soil 1596 m³ in life of mine (5 years).

DG Set - Not proposed

Crusher - Not proposed

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

This is a new project which has been taken for appraisal on 24.05.2023.

Project and Location Details :

Sl.	Parameter	Details	
1	Project Name	Armo Stone Deposit	
2	Lessee:	M/s Khushboo Stone Mines, Proprietor- Shri. Ratan Lal Yadav.	
3	Lease Address	Village Armo, P.S. – B.T.P.S, District- Bokaro, Jharkhand.	
4	Lease Area	Ha: 0.615	Acres: 1.52
5	Type of Land	Non-Forest – Rayati Land	
6	Project Cost	Rs. 101.59 Lakhs	
7	EMP Budget	Capital: Rs. 13.25 Lakhs	Recurring: Rs. 1.72 Lakhs/ year Monitoring cost: Rs. 0.90 Lakhs/year
8	CSR / CER Budget	Rs. 2.03 Lakhs	
9	New or Expansion	New	
10	Mineable Reserves	21439 cum.	Tonnes: 60032
11	Mine Life	5 years only	
12	Manpower	37 Person	
13	Water Requirement	5.396 KLD (Drinking: 2.96 KLD, Dust Suppression & Plantation: 2.436 KLD)	
14	Water Source	Authorized Supply Tankers	
15	DG Set / power	Not Proposed/Not Applicable	
16	Crusher	Not proposed/Not Applicable	
17	Nearest Water Body	Konar River at 1.33 Km. W Bokaro river at 7.07 Km. SW	
18	Nearest Habitation	Ganrke, 0.51 km (W)	
19	Nearest Railway Station	Bokaro Thermal Railway Station 6.67 km (SE)	
20	Nearest Airport	Birsa Munda Airport, Ranchi 78.64 km (SW)	

21	Nearest Forest	:	PF Absent	PF Absent
22	Road & Highways	:	B.T.P.S Main Road 0.48 km (N)	

CO-ORDINATES

1	Latitude	:	From 23°50'22.51"N	To 23°50'26.74"N
2	Longitude	:	From 85°50'52.13"E	To 85°50'55.49"E

LAND DETAILS

Khata No.	Plot No.	Area In Acres
12	54	1.52

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Bokaro vide memo no. 2957/Khanan, dated 31.10.2019.
2	CO	:	The CO, Bermo vide letter no. : 287, dated 10.05.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Bokaro vide memo no. 2160/Khanan, dated 07.10.2020 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wildlife	:	DFO, Wildlife Hazaribag vide letter no. : 2502, dated 19.11.2019 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Bokaro vide letter no. : 376, dated 31.01.2019 certified that the distance of notified forest is 400 m from proposed project site.
6	DSR	:	The project is mentioned in District Survey Report (DSR) of District Bokaro in page no. 65 (Sl. No. 08).
7	Gram Sabha	:	Mukhiya, Armo vide letter no. 41, dated 09.10.2020 informed that Gram Sabha conducted on 09.10.2020.
8	Mine Plan Approval	:	AMO, Deputy Director of Mines Office, Dhanbad Circle, Dhanbad vide memo no. 21/DDM, Dhanbad, dated 01.02.2020.

WORKING DETAILS


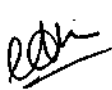
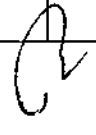

1	Mining Method	:	Opencast Semi-Mechanized Mining
2	Quarry Area	:	0.283 ha (Plan Period) Life of Mine – 0.283 ha
3	Waste Generation	:	Gritty Soil - 1596 cum (plan period) Life of Mine – Gritty Soil – 1596 cum
4	Stripping Ratio	:	15:1 (T:m ³)
5	Working Days	:	300 days/year
6	Benches: size & No	:	3 m x 3 m
7	Elevation of Mine (Maximum)	:	In 290 m MSL
8	Elevation of Mine (Minimum)	:	In 284 m MSL
9	Ultimate Working Depth	:	In 278 m MSL
10	Water Table	:	In 265 m MSL
11	Topography of Mine	:	Gently sloping and Undulating
12	Explosive Requirement	:	Slurry – 1.25 kg/day
13	Diesel/Fuel requirement	:	Diesel - 43 liter/day

PRODUCTION DETAILS

Year	Production of Stone in Tonnes per Annum	Gritty Soil removable in cum for 5 years
1 st	12009	621
2 nd	12010	800
3 rd	12007	175
4 th	12007	00
5 th	11999	00
Total	60032	1596

LAND USE

Type of land use	Existing in ha	During Plan Period in ha.	During Conceptual Period in ha
Quarry	Nil	0.283	0.283 (As Reservoir)*
Safety Zone (developed as greenbelt)	0.332	0.332	0.332

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Approach roads	0.003	Merged within quarry	-
Infrastructure	Nil	Nil	-
Area unused	0.28	Nil	-
Total	0.615	0.615	0.615

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.332 Ha	830
2	Other Reclaimed Area	:	0.000	000
3	Haul /Approach Road	:	0.21 Km	140 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 in form of gritty soil 1596 Cu.M. during the life of Mine. The removed soil will be simultaneously used in road dressing & maintenance, as such storage/ dumping is not required.

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.

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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 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 Armo Stone Deposit of M/s Khusboo Stone Mines (Shri Ratan Lal Yadav), Village : Armo, Tehsil : Bermo, Distt. : Bokaro, Jharkhand (0.615 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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5. Keliadabar Stone Deposit of M/s Jyoti Minerals (Prop. : Shri Mohan Lal Jain), Village : Keliadabar, Thana : Pindrajora, Distt. : Bokaro, Jharkhand (1.804 Ha).

(Proposal No. : SIA/JH /MIN /429266 /2023).

Applied Area : 4.46 Acres (1.804 Ha)

Project Category : B2 – Application for Environment Clearance

EC Application for : Total Excavation - Stone – 422 TPD

Annual Production – 45194m³/126543 TPA

Gritty soil- 3562 m³ in life of mine (5 years).

DG Set - Not proposed

Crusher - Not proposed

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

This is a new project which has been taken for appraisal on 24.05.2023

Project and Location Details :

Sl.	Parameter	Details
1	Project Name	: Keliadabar Stone Deposit
2	Lessee:	: M/s Jyoti Minerals, Proprietor- Shri. Mohan Lal Jain
3	Lease Address	: Village- Keliadabar, P.S.- Pindrajora, District- Bokaro, State- Jharkhand.
4	Lease Area	: Ha: 1.804 Acres: 4.46
5	Type of Land	: Non-Forest – Rayati Land
6	Project Cost	: Rs. 103.43 Lakhs
7	EMP Budget	: Capital: Rs. 16.43 Lakhs Recurring: Rs. 1.97 Lakhs/ year Monitoring cost: Rs. 0.90 Lakhs/year
8	CSR / CER Budget	: Rs. 2.03 Lakhs
9	New or Expansion	: New
10	Mineable Reserves	: 2,25,910 cum. Tonnes: 632548
11	Mine Life	: 5 years only
12	Manpower	: 35 Person
13	Water Requirement	: 8.01 KLD (Drinking: 2.8 KLD, Dust Suppression & Plantation: 5.21 KLD)
14	Water Source	: Supply with authorized Tankers
15	DG Set / power	: Not Proposed/Not Applicable
16	Crusher	: Not proposed/Not Applicable
17	Nearest Water Body	: Izri River at 6.52 Km. NW DVC Dam – 6.00 Km NW
18	Nearest Habitation	: Keliadabar – 0.7 km (NW)
19	Nearest Railway Station	: Pundag Railway Station 14 km (W)

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20	Nearest Airport	:	Birsa Munda Airport, Ranchi 94.62 km (SW)	
21	Nearest Forest	:	Mohanpur PF	3.05 km S
			Pindrajora PF	4.41 km SW
			Damundi PF	3.95 km SE
			Chakpur PF	8.74 km NE
22	Road & Highways	:	NH- 18 Purulia Marg (2.8 Km W)	

CO-ORDINATES

1	Latitude	:	From 23°30'53.51" N	To 23°31'00.94 N
2	Longitude	:	From 86°13'35.79" E	To 86°13'40.94" E

LAND DETAILS

Khata No.	Plot No.	Area In Acres
108	1746	4.46

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Bokaro vide memo no. 1660/Khanan, dated 27.06.2020.
2	CO	:	The CO, Chas (Bokaro) vide letter no. : 747, dated 07.05.2020 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatyan.
3	DMO	:	DMO, Bokaro vide memo no. 2522/Khanan, dated 18.12.2020 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wildlife	:	DFO, Wildlife Hazaribag vide letter no. : 1905, dated 05.11.2020 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Bokaro vide letter no. : 634, dated 17.03.2020 certified that the distance of notified forest is 760 m from proposed project site.
6	DSR	:	The project is mentioned in District Survey Report (DSR) of District Bokaro in page no. 65 (Sl. No. 10).

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7	Gram Sabha	:	Gram Sabha conducted on 15.10.2020.
8	Mine Plan Approval	:	AMO, Deputy Director of Mines Office, Dhanbad Circle, Dhanbad vide memo no. 13/DDM, Dhanbad, dated 08.01.2021.

WORKING DETAILS

1	Mining Method	:	Opencast Semi-Mechanized Method Mining
2	Quarry Area	:	1.33 ha (Plan Period) Life of Mine – 1.33 ha
3	Waste Generation	:	Gritty Soil - 3562 cum (plan period) Life of Mine – Gritty Soil - 3562 cum
4	Stripping Ratio	:	63:1 (T:m ³)
5	Working Days	:	300 days/year
6	Benches: size & No	:	6m x 6m
7	Elevation of Mine (Maximum)	:	In 211 m MSL
8	Elevation of Mine (Minimum)	:	In 208 m MSL
9	Ultimate Working Depth	:	In 169 m MSL
10	Water Table	:	In 159 m MSL
11	Topography of Mine	:	Gently sloping and Undulating
12	Explosive Requirement	:	Slurry – 46 kg/day
13	Diesel/Fuel requirement	:	Diesel - 43 liter/day

PRODUCTION DETAILS

Year	Production of Stone in Tonnes per Annum	Gritty Soil removable in cum for 5 years
1 st	126426	2028
2 nd	126470	00
3 rd	126543	00
4 th	126504	1534
5 th	126524	00
Total	632467	3562

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LAND USE

Type of land use	Existing in ha	During Plan Period in ha.	During Conceptual Period in ha
Quarry	0.00	1.33	1.33 (As Reservoir)*
Safety Zone (developed as greenbelt)	0.00	0.46	0.46
Approach roads	0.01	0.014	0.014
Area unused	1.794	Nil	-
Total	1.804	1.804	1.804

ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION	Area/Length	No of Trees
1	Safety Zone	: 0.46 Ha	1150
2	Other Reclaimed Area	: 0.000	000
3	Haul /Approach Road	: 1.18 Km	787 Trees both side approach road.

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

Solid Waste Management

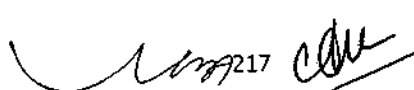



- Overburden Generation will be in form of gritty soil 3562 Cu.M. during the life of Mine. The gritty soil will be removed and will be simultaneously used in road dressing, plantation & maintenance and the rest will be backfilled in north – central portion of the mine pit.

Water Pollution Control Measures:

- Negligible impact envisaged on surface water and ground water due to mining, as no discharge of effluents or intersection of ground water.
- No major surface water body within 1 km radius of the project site.
- Post-project the quarry area will serve as a reservoir, which will be a source of water for the nearby areas.
- Garland drains shall be developed to divert storm water flowing into the mine pit.

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.

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- Regular monitoring of Air quality & PUC for vehicle will be carried out.

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 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 Keliadabar Stone Deposit of M/s Jyoti Minerals (Prop. : Shri Mohan Lal Jain), Village : Keliadabar, Thana : Pindrajora, Distt. : Bokaro, Jharkhand (1.804 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

- Khutri Stone Deposit of M/s Samleshwari Minerals (Prop. : Shri Laxmi Narayan Singh), Village : Khutri, Tehsil : Jaridih, Distt. : Bokaro, Jharkhand (2.02 Ha).

(Proposal No. : SIA/JH /MIN /429538 /2023).

Applied Area : 5 Acres (2.02 Ha)
 Project Category : B2 – Application for Environment Clearance
 EC Application for : Total Excavation - Stone – 508 TPD
 Annual Production – 54385m³/152279TPA
 Gritty soil 6663 m3 in life of mine (5 years).
 DG Set - Not proposed
 Crusher - Not proposed

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

This is a new project which has been taken for appraisal on 24.05.2023

Project and Location Details :

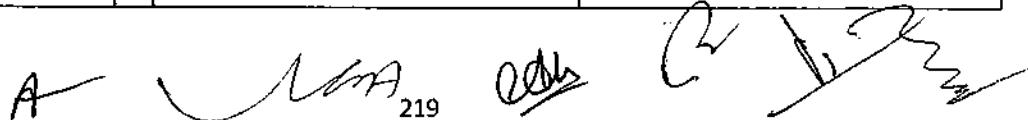
Sl.	Parameter	Details
1	Project Name	: Khutri Stone Deposit
2	Lessee:	: M/s Samleshwari Minerals, Proprietor- Shri. Laxmi Narayan Singh

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3	Lease Address	:	Village -Khutri, P.S.- Petarwar, District- Bokaro, State – Jharkhand	
4	Lease Area	:	Ha: 2.02	Acres: 5
5	Type of Land	:	Non-Forest – Rayati Land	
6	Project Cost	:	Rs. 103.73 Lakhs	
7	EMP Budget	:	Capital: Rs. 16.55 Lakhs	Recurring: Rs. 2 Lakhs/ year Monitoring cost: Rs. 0.90 Lakhs/year
8	CSR / CER Budget	:	Rs. 2.08 Lakhs	
9	New or Expansion	:	New	
10	Mineable Reserves	:	2,71,905 cum.	Tonnes: 7,61,337
11	Mine Life	:	5 years only	
12	Manpower	:	37 Person	
13	Water Requirement	:	8.78 KLD (Drinking: 2.96KLD, Dust Suppression & Plantation: 5.82 KLD)	
14	Water Source	:	Supply Tankers	
15	DG Set / power	:	Not Proposed/Not Applicable	
16	Crusher	:	Not proposed/Not Applicable	
17	Nearest Water Body	:	Khanjo River at 3.59 Km. W Damodar river at 4.32 Km. NE Gargo River at 8.85 km SE	
18	Nearest Habitation	:	Khutri at 1.4 Km SE	
19	Nearest Railway Station	:	Tupkadih Railway Station 2.42 km (NE)	
20	Nearest Airport	:	Birsamunda Airport, Ranchi 84.2 km (SW)	
21	Nearest Forest	:	Chirubera PF Ghoragara PF Dakabera Open Jungle PF	8.06 km NE 5.38 km NE 2.70 km NE
22	Road & Highways	:	NH-23 (4.32 Km SE) MDR Dumri Bermo Jaina Road – 0.27 Km SE	

CO-ORDINATES

1	Latitude	:	From 23°42'26.21" N	To 23°42'30.28" N
2	Longitude	:	From 86° 02' 18.54" E	To 86° 02' 27.55" E



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LAND DETAILS

Khata No.	Plot No.	Area In Acres
18	226 (P)	5.00

STATUTORY CLEARANCES

1	LOI/Lease docs	: The Letter of Intent (LoI) has been issued by DMO, Bokaro vide memo no. 2086/Khanan, dated 25.09.2020.
2	CO	: The CO, Jaridih (Bokaro) vide letter no. : 331, dated 06.05.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in Khatiyon.
3	DMO	: DMO, Bokaro vide memo no. 2132/Khanan, dated 01.10.2020 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wildlife	: DFO, Wildlife Hazaribag vide letter no. : 1826, dated 27.10.2020 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Forest Distance	: DFO, Bokaro vide letter no. : 2476, dated 28.08.2018 certified that the distance of notified forest is 650 m from proposed project site.
6	DSR	: The project is mentioned in District Survey Report (DSR) of District Bokaro in page no. 66 (Sl. No. 13).
7	Gram Sabha	: Mukhiya, Khutri vide letter no. 103/2020, dated 28.09.2020 informed that Gram Sabha conducted on 28.09.2020.
8	Mine Plan Approval	: AMO, Deputy Director of Mines Office, Dhanbad Circle, Dhanbad vide memo no. 14/DDM, Dhanbad, dated 08.01.2021.

WORKING DETAILS

1	Mining Method	: Opencast Semi-Mechanized Mining
2	Quarry Area	: 1.54 ha (Plan Period) Life of Mine – 1.54 ha
3	Waste Generation	: Gritty Soil - 6663 cum (plan period) Life of Mine – Gritty Soil - 6663 cum
4	Stripping Ratio	: 37:1 (T:m3)
5	Working Days	: 300 days/year
6	Bench: size & No	: 6m x 6m
7	Elevation of Mine (Maximum)	: In 214 m MSL

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8	Elevation of Mine (Minimum)	:	In 211 m MSL
9	Ultimate Working Depth	:	In 178 m MSL
10	Water Table	:	In 160-163 m MSL
11	Topography of Mine	:	Gently sloping and Undulating
12	Explosive Requirement	:	Slurry – 90 kg/day
13	Diesel/Fuel requirement	:	Diesel - 50 liter/day

PRODUCTION DETAILS

Year	Production of Stone in Tonnes per Annum	Gritty Soil removable in cum for 5 years
1 st	152265	4165
2 nd	152265	980
3 rd	152264	00
4 th	152265	1518
5 th	152279	00
Total	761337	6663

LAND USE

Type of land use	Existing in ha	During Plan Period in ha.	During Conceptual Period in ha
Quarry	Nil	1.54	1.54 (As Reservoir)*
Safety Zone (developed as greenbelt)	0.48	0.48	0.48
Approach roads	0.03	Nil	-
Infrastructure	Nil	Nil	-
Area unused	1.51	Nil	-
Total	2.02	2.02	2.02

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ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION	Area/Length	No of Trees
1	Safety Zone	: 0.48 Ha	1200
2	Other Reclaimed Area	: 0.000	000
3	Haul /Approach Road	: 0.34 Km	227 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 in form of gritty soil 6663Cu.M. during the life of Mine. Gritty soil will be removed which will be backfilled within the exhausted quarry. Thus no storage of waste is required.

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 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 Khutri Stone Deposit of M/s Samleshwari Minerals (Prop. : Shri Laxmi Narayan Singh), Village : Khutri, Tehsil : Jaridih, Distt. : Bokaro, Jharkhand (2.02 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

7. Pichhri Stone Deposit of Shri Bhagwan Singh, Village : Pichhri, Thana : Peterwar, Distt. : Bokaro, Jharkhand (0.91 Ha).




(Proposal No. : SIA/JH /MIN /429433 /2023).

Applied Area : 2.24 Acres (0.91 Ha)
 Project Category : B2 – Application for Environment Clearance
 EC Application for : Total Excavation - Stone – 115 TPD
 Annual Production – 12287m³/34403TPA
 Gritty soil 1661 m3 in life of mine (5 years).
 DG Set - Not proposed
 Crusher - Not proposed

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

This is a new project which has been taken for appraisal on 24.05.2023.

Project and Location Details :

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Sl.	Parameter	Details	
1	Project Name	: Pichhri Stone Deposit	
2	Lessee:	: Pichhri Stone Deposit, Proprietor- Shri. Bhagwan Singh	
3	Lease Address	: Village- Pichhri, P.S.- Petarwar, District- Bokaro, State- Jharkhand	
4	Lease Area	: Ha: 0.91	Acres: 2.24
5	Type of Land	: Non-Forest – Rayati Land	
6	Project Cost	: Rs. 101.85 Lakhs	
7	EMP Budget	: Capital: Rs. 13.74 Lakhs	Recurring: Rs. 1.71 Lakhs/ year Monitoring cost: Rs. 0.90 Lakhs/year
8	CSR / CER Budget	: Rs. 2.04 Lakhs	
9	New or Expansion	: New	
10	Mineable Reserves	: 61,416 cum.	Tonnes: 1,71,965
11	Mine Life	: 5 years only	
12	Manpower	: 31 Person	
13	Water Requirement	: 5.79 KLD (Drinking: 2.48 KLD, Dust Suppression & Plantation: 3.31 KLD)	
14	Water Source	: Supply Tankers	
15	DG Set / power	: Not Proposed/Not Applicable	
16	Crusher	: Not proposed/Not Applicable	
17	Nearest Water Body	: Damodar river at 0.3 Km. N Khanjo River at 4.82 Km. SW	
18	Nearest Habitation	: No Habitation within 500 m	
19	Nearest Railway Station	: Tupkadih Railway Station 2.42 km (NE)	
20	Nearest Airport	: Birsa Munda Airport, Ranchi 84.2 km (SW)	
21	Nearest Forest	: Tarmi Protected Forest Nara Protected Forest Chirubera Mohlidih PF Kherho (Open Jungle)	1.377 km N 5.52 km NE 4.04 km NE 1.88 km SW
22	Road & Highways	: NH- 23 (8.22 Km SE) Dumri Bermo Jaina Road (0.25 Km SW)	

CO-ORDINATES

1	Latitude	: From 23°44'36.01" N	To 23°44'40.81" N
2	Longitude	: From 86° 02' 31.53" E	To 86° 02' 36.61" E

LAND DETAILS

Khata No.	Plot No.	Area in Acres
81	3071 (P) & 3076	2.24

STATUTORY CLEARANCES

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Bokaro vide memo no. 147/Khanan, dated 18.01.2020.
2	CO	:	The CO, Petarwar vide letter no. : 745, dated 26.10.2019 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar Register II.
3	DMO	:	DMO, Bokaro vide memo no. 296/Khanan, dated 03.02.2020 certified that 01 other mining lease area (2.00 acre) exists within 500 m radius from proposed project site.
4	DFO Wildlife	:	DFO, Wildlife Hazaribag vide letter no. : 236, dated 01.02.2020 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Bokaro vide letter no. : 3528, dated 29.11.2019 certified that the distance of notified forest is 500 m from proposed project site.
6	DSR	:	The project is mentioned in District Survey Report (DSR) of District Bokaro in page no. 65 (Sl. No. 12).
7	Gram Sabha	:	Mukhiya, Pichhri South vide letter no. 343/2020, dated 11.09.2020 Gram Sabha conducted on 11.09.2020.
8	Mine Plan Approval	:	AMO, Deputy Director of Mines Office, Dhanbad Circle, Dhanbad vide memo no. 34/DDM, Dhanbad, dated 13.02.2020.

WORKING DETAILS

1	Mining Method	:	Opencast Semi-Mechanized Mining
2	Quarry Area	:	0.54 ha (Plan Period) Life of Mine – 0.54 ha
3	Waste Generation	:	Gritty Soil - 1661 cum (plan period) Life of Mine – Gritty Soil - 1661 cum
4	Stripping Ratio	:	38:1 (T:m ³)
5	Working Days	:	300 days/year
6	Benches: size & No	:	6m x 6m

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7	Elevation of Mine (Maximum)	:	In 205 m MSL
8	Elevation of Mine (Minimum)	:	In 202 m MSL
9	Ultimate Working Depth	:	In 184 m MSL
10	Water Table	:	In 168 m MSL
11	Topography of Mine	:	Gently sloping and Undulating
12	Explosive Requirement	:	Slurry - 2.25 kg/day
13	Diesel/Fuel requirement	:	Diesel - 43 liter/day

PRODUCTION DETAILS

Year	Production of Stone in Tonnes per Annum	Gritty Soil removable in cum for 5 years
1 st	34393	913
2 nd	34387	00
3 rd	34391	550
4 th	34391	00
5 th	34403	198
Total	171965	1661

LAND USE

Type of land use	Existing in ha	During Plan Period in ha.	During Conceptual Period in ha
Quarry	Nil	0.54	0.54 (As Reservoir)*
Safety Zone (developed as greenbelt)	0.37	0.37	0.37
Approach roads	0.003	Merged within quarry	-
Infrastructure	Nil	Nil	-
Area unused	0.537	Nil	-
Total	0.91	0.91	0.91

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ENVIRONMENT MANAGEMENT

Green Belt Development

SL	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.37 Ha	925
2	Other Reclaimed Area	:	0.000	000
3	Haul /Approach Road	:	0.25 Km	166 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 in form of gritty soil 1561 Cu.M. during the life of Mine. Gritty soil will be removed which will be backfilled within the exhausted quarry. Thus no storage of waste is required.

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.

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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 Pichhri Stone Deposit of Shri Bhagwan Singh, Village : Pichhri, Thana : Peterwar, Distt. : Bokaro, Jharkhand (0.91 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

8. Proposed production capacity of the M.S. billets from 28800 TPA to ~950 MT/day (3,23,000 TPA) of steel billets, proposed ~920 MT/day (3,12,800 TPA) of rolled products and slag crushing unit from 1500 TPA to 1,45,000 TPA of M/s JKI Infrastructure Pvt. Ltd. of Shri Anil Kumar Pandey, Mouza : Barwadih, Thana no. : 251, P.S. : Teliya, Tehsil : Koderma, Distt : Koderma, Jharkhand. (Proposal No : SIA/JH/IND1/ 429580/2023).

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

This is a existing project which has been taken for appraisal on 24.05.2023.

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 98th meeting held on 02-05.11.2022 and SEIAA, Jharkhand has approved the ToRs in 99th meeting held on 28th & 29th November, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2022-23/2662/2022/297, date 12.12.2022. The final EIA / EMP submitted by PP to SEIAA on 20.05.2023 and which was forwarded to SEAC on 20.05.2023.

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S. No	Parameters	Description
1	Identification of project	Project falls under Metallurgical Industries (secondary metallurgical processing) Item 3(a) of the schedule of EIA notification of Sept 14, 2006 issued by MOEF & CC.
2	Project Proponent	M/s. JKI Infrastructure Pvt. Ltd.
3	Brief description of nature of the project	After proposed expansion, installed production capacity of the industrial unit will increase from 28800 TPA ~950 MT/day (3,23,000 TPA) of steel billets, proposed ~920 MT/day (3,12,800 TPA) of rolled products and slag crushing unit from 1500 TPA to 50,000 TPA.
4	Salient Features of the Project	
4.1	Proposed production capacity	~The production capacity of final/end product will be ~950 MT/day of steel billets & ~920 MT/day of rolled products (different rolled sections), while operating round the clock
4.2	Total Plot Area	Total Plot Area –7.94 Acre
4.3	Location	Mauza – Barwadih, P.S Telaiya, Dist Koderma.
4.4	Water requirement	Water requirement is fulfilled through bore well made at the plant area and from the rain water harvesting pond. Overall water requirement for the proposed expansion project will be approx. 363 KLD out of which 305 KLD will be recirculated in the process and 58 KLD will be makeup water.
4.5	Source of water	Borewell
4.6	Wastewater	The domestic water consumption will result in generation of ~03 m ³ /day of domestic wastewater. The wastewaters will be treated and entirely reused.
4.7	Man Power	Around 80 person
4.8	Electricity/Power requirement	The electrical power requirement will increase to ~24000 kVA. One DG set of 500 kVA already installed (as power back-up).
4.9	Alternative site	The proposed addition will be established in the existing plant premises only.

Coordinate of the site :

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

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LAND DETAILS :

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

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

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

Sl no	Particulars	Existing	Proposed	After expansion final
1.	Unit processes/ machinery	Induction furnace (10 MT/heat) Required utilities	Induction furnaces: (25*3 +20*1= 95 MT/heat) <u>Existing 10 MT induction will be upgraded to 20 MT</u> Ladle refining furnace (LRF): (50MT/batch) Continuous casting (con cast) machine: - 50MT/hr Rerolling mill (920 MT/day (3,12,800 TPA) Slag crusher 30,000 TPA Required utilities	Induction furnaces: (25*3 +20*1= 95 MT/heat) Ladle refining furnace (LRF): (50MT/batch) Continuous casting (con cast) machine: - 50MT/hr Rerolling mill (920 MT/day (3,12,800 TPA) Slag crusher 30,000 TPA Required utilities
2.	Installed production capacity	~90MT/day (steel ingots/billets)	~860 TPA (billets) & ~920TPA (steel rolled sections)	~950 TPA (billets) & ~920TPA (steel rolled sections)

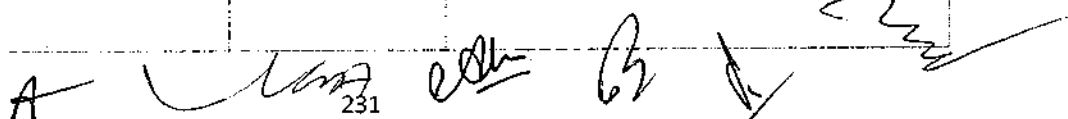
3.	Fixed capital investment (Rs)	25 Cr	~75 Cr	~95 Cr
4.	Electrical power requirement	~6.5MVA	~24MVA	~17.5 MVA
5.	Sponge iron	~129 MT/day	~807 TPD	~936 TPD
6.	Ferro-alloys	~1 MT/day	~19TPD	~20 TPD
7.	MS scrap	~10 MT/day	~200TPD	~210TPD
8.	Ingots/billets (Only for rolling)	~80 TPD	~870 MT/day	~950 MT/day
9.	Manpower requirement	~30	~50	~80
10.	Process water requirement	~ 8m3/day	~ 50m3/day	~ 58m3/day
11.	Domestic water requirement	~1.26 m3/day	~2.74 m3/day	~4 m3/day
12.	Domestic wastewater generation	~1.09 m3/day	~2.51 m3/day	~3.6 m3/day

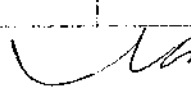


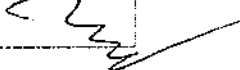
Specific consumption of the plant

S.No	Raw Materials	Proposed quantity MT/day	Mode of Transportation	Distance
1.	Sponge Iron	936	By road	100 km Ramgarh Jharkhand
2.	Ferro Alloys (SiMn/FeSi)	20	By road	150 km Bokaro Jharkhand
3	MS scrap (purchased and return)	210	Inhouse by road	Open market in Dhanbad

Industrial Solid waste and Hazardous waste

Units	Solid Wastes	Qty In TPD	Disposal practice
Induction Furnace	Slag	190	In-house metal recovery in slag crusher and supplied outside for further reuse in construction work.



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Bag Filter Dust from process	Dust from process	~20kg/day	Partly recycled (metal content). Rest supplied outside for further reuse in construction work and Low land filling
Rolling Mill	End cuttings & Mill Scale	30 MT/day	Recycled in-house along with scrap in the induction furnace.





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

Electricity regulation for safe distance from Hight tension power supply

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

STATUTORY CLEARANCES :

1	DFO Forest Distance	:	DFO, Koderma Forest division vide letter no. 1348, dated 27.03.2021 certified that the distance of reserved / protected forest is 260 m from proposed project site.
2	DFO wildlife	:	DFO, Wildlife Hazaribagh vide letter no. 734, dated 10.04.2021 certified that the proposed project site is out of Eco Sensitive Zone of Koderma Wildlife Sanctuary.
3	CO certificate	:	The CO, Koderma vide letter no. 1062, dated 22.07.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyon.
4	Consent to Operate (CTO)	:	i. Consent to Operate (CTO) granted by JSPCB vide Ref. no. : JSPCB/HO/RNC/CTO-12332486/2022/1246, dated 02.09.2022. ii. Consent to Operate (CTO) granted by JSPCB vide Ref. no. : JSPCB/HO/RNC/CTO-15613498/2023/880, dated 14.05.2023.
5	Consent to Eastblish (CTE)	:	CTE granted by JSPCB vide Ref. no. : JSPCB/HO/RNC/CTE-10679717/2021/252, dated 30.09.2021
6	CGWA	:	No Objection Certificate for Ground Water Abstraction issued by CGWA vide NOC No. : CGWA/NOC/ORIG/2023/17636, dated 23.01.2023.
7	Public Hearing	:	Public Hearing conducted on 22.04.2023.

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As per the public hearing dated 22-04-2023 public hearing commitment funds are allocated are as follows: -

S. No	Area of Concern	Action Plan	Budget Allocated Rs (in Lakhs)	Time Period
01.	Vocational Training for Skill Development	The project proponent will provide financial support to the 20 person /year. (Rs. 10000*20 person *5 years)	15.00	06 months
02.	Greenbelt Development	Plantation in and around the project site, nearby villages and schools	5.00	06 months
03.	Health Camp	Generic health checkup camp will be organized for villagers within 2 km of the project site for the coming 5 years from the execution date of the project	12.00	Twice per year
04.	Transportation Route maintenance	Regular maintenance of Transportation route Ghajandi Road	10.00	Six Month
05.	Community Development	Installation of solar lighting in village Barwadih (Rs. 25,000 x 20) Nos.) &	5.00	Six month
		Renovation of Toilet Facilities in nearby Government Schools in Village Barwadih	8.00	Six month
Total			55.00	

EMP budget

S.No	Title	Capital Cost Rs. Lacs	Recurring Cost Rs. Lacs (Annum)
1	Air Pollution Control	60.00	15.00
2.	Water Pollution Control/Sewage Treatment Plant	10.00	1.0
3.	Noise Pollution Control (Including cost of Landscaping, Green Belt)	15.00	2.00
4.	Solid Waste Management	5.00	2.00
5.	Environment Monitoring and Management (Including Establishment of Laboratory)	15.00	0.5
6.	RWH Pond	15.00	2.50



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7.	Miscellaneous (Appointment of Consultants, occupational health & safety measure)	15.00	1.0
	Total	135	24
	Fund allocated for the commitment made during public hearing	55	Implementation as per the plan
	Grand Total	190	

Based on the presentation made and information provided, the Committee decided that the proposal for Proposed production capacity of the M.S. billets from 28800 TPA to ~950 MT/day (3,23,000 TPA) of steel billets, proposed ~920 MT/day (3,12,800 TPA) of rolled products and slag crushing unit from 1500 TPA to 1,45,000 TPA of M/s JKI Infrastructure Pvt. Ltd. of Shri Anil Kumar Pandey, Mouza : Barwadih, Thana no. : 251, P.S. : Teliya, Tehsil : Koderma, Distt : Koderma, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – VII alongwith specific conditions :

- I. Copy of the approved Site Specific Wildlife Conservation Plan (SSWCP) is to be submitted to SEIAA/SEAC immediately after its approval by the competent authority.
- II. The Project Authorities must ensure Offset of conventional energy requirement of not less than 2% by installation of solar panel. Overall conservation of not less than 20% is to be ensured by use of efficient energy measures.

9. Proposed production capacity of the M.S. billets is ~500 MT/day (1,50,000 TPA) ~500 MT/day (1,50,000 TPA) rolling mill of (using CCM) ~500 TPD & Slag crushing unit ~10 TPH of M/s. Ramkripal Steels Pvt. Ltd. at Village : Barwadih, Tehsil : Koderma, Dist. : Koderma, Jharkhand. (Proposal No. : SIA/JH/IND1 /429861/2023).

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

This is an expansion project which has been taken for appraisal on 24.05.2023.

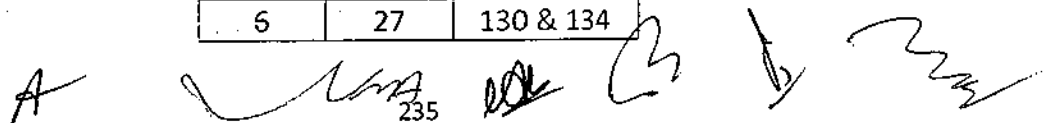
The State Expert Appraisal Committee, Jharkhand deliberated the project during its 94th meeting held on 10-14.05.2022 and SEIAA, Jharkhand has approved the ToRs in 95th meeting held on 14th, 15th & 16th June, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2022-23/2592/2022/128; date 18.06.2022. The final EIA / EMP submitted by PP to SEIAA on 20.05.2023 and which was forwarded to SEAC on 20.05.2023.

A [Signature] [Signature] [Signature] [Signature]

S. No	Parameters	Description
1	Identification of project	Project falls under Metallurgical Industries (secondary metallurgical processing) Item 3(a) of the schedule of EIA notification of Sept 14, 2006 issued by MOEF & CC.
2	Project Proponent	M/s. Ramkripal Steels Pvt. Ltd.
3	Brief description of nature of the project	The unit is for manufacturing of Bars & Rods using
4	Salient Features of the Project	
4.1	Proposed production capacity	Proposed production capacity is ~500 MT/day (1,50,000 TPA) of M.S. billets and ~500 MT/day (1,50,000 TPA) rolling mill of (using CCM ~500 TPD). & Slag crushing unit ~10 TPH.
4.2	Total Plot Area	Total Plot Area ~7.40 Acre
4.3	Location	Jhumri Telaiya, Jharkhand (India)
4.4	Water requirement	Water is only required to meet the process cooling water and its make-up (~80 m ³ /day) and domestic requirement (~20 m ³ /day). The cooling water will be normal raw water for rolling mill activities and RO treated water for induction furnaces.
4.5	Source of water	Borewell
4.6	Wastewater	The domestic water consumption will result in generation of ~12 m ³ /day of domestic wastewater. The wastewaters will be treated and entirely reused.
4.7	Man Power	Around 300 person
4.8	Electricity/Power requirement	The electrical power requirement will increase to ~45.5 MVA. One DG set of 500 kVA will be installed (as power back-up).
4.9	Alternative site	The proposed addition will be established in the existing plant premises only.
4.10	Land form, Land use and land ownership	Private land, owned by M/s. Ramkripal Steels Pvt. Ltd.
4.11	Project Cost	94.00 Crore

Land Details

Sl No.	Khata No.	Plot No.
1	57	144
2	58	139
3	100	138
4	122	137 & 141
5	65	148
6	27	130 & 134

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7	113	136
8	119	135

Site Coordinate

Corners	Latitude	Longitude
Corner -I	24°25'37.660"N	85°29'30.331"E
Corner -II	24°26'39.810"N	85°29'32.512"E
Corner -III	24°26'40.130"N	85°29'30.603"E
Corner -IV	24°25'45.359"N	85°29'39.056"E

Plant obtained CTE from Jharkhand State Pollution Control Board (JSPCB) vide letter no JSPCB/HO/RNC/CTE-9340615/2021/188 for the establishment of production of billets of capacity 26400 TPA and Slag crushing unit of 4800 TPA dated on 2021.09.05.

Sl. No	Plant Facilities	Proposed production details
1.	Induction Furnace	Induction furnaces (2 x 15 Tons + 1 x 20 Tons) 1,50,000 TPA
2.	Rolling Mill	500 TPD
3.	Re-heating Furnace only for emergency use	1x30 TPH (max. 99,000 TPA)
4.	Slag Crusher	1x10TPH (max.33,000 TPA)

Raw Material Requirement :

S.No	Raw Materials	Proposed quantity MT/day	Mode of Transportation	Distance
1.	Sponge Iron	480	By road	100 km Ramgarh Jharkahnd
3.	Ferro Alloys (SiMn/FeSi)	20	By road	150 km Bokaro Jharkahnd
4.	Metal scrap from in house metal extraction & purchased	100	In house & open market	Open market
	Total Raw Materials	600 TPD		
Rolling Mill – TMT Bars/Rods (Total production: 500 TPD)				
	M.S. Billet purchase from out side	10 TPD		05 km Koderma



	Hot Billets in house	500 TPD		In- house
	Coal/Furnace Oil/PNG for re-heating furnace (Standby)	70 Kg/ton (Coal)		

Breakup of land use for the proposed expansion is as follows :

SL No	TYPE OF USE	AREA (sq. mt)
1	Production & Allied facilities	13937
3	Entrance, Roads and Pavements	4300
4	Storage yard, vacant area etc.	725.69
5	Labour quarter	1000
6	Green Belt	9984.01
	TOTAL	29946.7

- Approx 1.40 Acre of land within the site is having existing tree plantation which is considered as green belt for the proposed project
- All the existing trees will be retained at site and no tree will be cut without having permission from the competent authority

Air Pollution Control Details

Name of Units	Name of APCD	Stack Height (mtr)	Emission Design
Induction Furnace	Fume extraction with Bag filter)	30	<50mg/Nm ³
Hot Rolling Mill	Dust extraction with Bag filter)	30	<50mg/Nm ³
Reheating Furnace (Standby) (Furnace oil /PNG as fuel)	Wet scrubber	30	<50mg/Nm ³
Slag crushing	Dust extraction system	30	<100mg/Nm ³
DG Set	Stack	10	<150 mg/Nm ³

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Industrial Solid waste and Hazardous waste

Units	Solid Wastes	Qty In TPA	Disposal practice
Induction Furnace	Slag	3900	In-house metal recovery in slag crusher and supplied outside for further reuse in construction work.
Bag Filter Dust from process	Dust from process	600	Partly recycled (metal content). Rest supplied outside for further reuse in construction work and Low land filling
Rolling Mill	End cuttings & Mill Scale	300	Recycled in-house along with scrap in the induction furnace.
Re-heating furnace	Ash & Bag filter dust	94.5	Supplied to Fly Ash block manufacturers. *No generation if furnace oil is used.

There is no hazardous waste from the plant except for used oil (approx. 0.2 – 0.3 KL/Year) from equipment, which will be stored properly as per norms and is saleable to the registered recyclers in the market.






1	DFO Forest Distance	:	DFO, Koderma Forest Division vide letter no. 3092, dated 24.12.2020 certified that the distance of reserved / protected forest is 260 m from proposed project site.
2	DFO Wild Life	:	DFO, Wildlife Hazaribagh Division vide letter no. 156, dated 27.01.2021 certified that the proposed project site is outside Eco sensitive Zone of Koderma Wildlife Sanctuary.
3	CO certificate	:	The CO, Koderma vide memo no. 59, dated 07.05.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyar & Register II.
4	Consent to Establish (CTE)	:	CTE granted by JSPCB vide Ref. no. : JSPCB/HO/RNC/CTE-9340615/2021/188, dated 05.09.2021
5	Consent to Operate (CTO)	:	Consent to Operate (CTO) granted by JSPCB vide Ref. no. : JSPCB/HO/RNC/CTO-14120691/2022/1345, dated 15.09.2022.
6	CGWA	:	No Objection Certificate for Ground Water Abstraction issued by CGWA vide NOC No. : CGWA/NOC/IND/ORIG/2023/17566, dated 16.01.2023.
7	Public Hearing	:	Public Hearing conducted on 08.04.2023.

As per the public hearing dated 22-04-2023 public hearing commitment funds are allocated are as follows: -

S. No	Area of Concern	Action Plan	Budget Allocated Rs (in Lakhs)	Time Period
01.	Vocational Training for Skill Development	The project proponent will provide financial support to the 20 person /year. (Rs. 10000*20 person *5 years)	15.00	06 months
02.	Greenbelt Development	Plantation in and around the project site, nearby villages and schools	5.00	06 months
03.	Health Camp	Generic health checkup camp will be organized for villagers within 2 km of the project site for the coming 5 years from the execution date of the project	12.00	Twice per year
04.	Transportation Route maintenance	Regular maintenance of Transportation route Ghajandi Road	10.00	Six Month
05.	Community Development	Installation of solar lighting in village Barwadih (Rs. 25,000 x 20) Nos.) &	5.00	Six months
		Renovation of Toilet Facilities in nearby Government Schools in Village Barwadih	6.00	Six months
Total			53	

EMP budget

S.No	Title	Capital Cost Rs. Lacs	Recurring Cost Rs. Lacs (Annum)
1	Air Pollution Control	60.00	15.00
2.	Water Pollution Control/Sewage Treatment Plant	12.00	2.0
3.	Noise Pollution Control (Including cost of Landscaping, Green Belt)	15.00	2.00
4.	Solid Waste Management	6.00	2.00
5.	Environment Monitoring and Management (Including Establishment of Laboratory)	15.00	0.5
6.	RWH Pond	15.00	2.50

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7.	Miscellaneous (Appointment of Consultants, occupational health & safety measure)	15.00	1.0
	Total	138	25
	Fund allocated for the commitment made during public hearing	53	Implementation as per the plan
	Grand Total	191	

Based on the presentation made and information provided, the Committee decided that the proposal for Proposed production capacity of the M.S. billets is ~500 MT/day (1,50,000 TPA) ~500 MT/day (1,50,000 TPA) rolling mill of (using CCM) ~500 TPD & Slag crushing unit ~10 TPH of M/s. Ramkripal Steels Pvt. Ltd. at Village : Barwadih, Tehsil : Koderma, Dist. : Koderma, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – VII alongwith specific conditions :

- I. Copy of the approved Site Specific Wildlife Conservation Plan (SSWCP) is to be submitted to SEIAA/SEAC immediately after its approval by the competent authority.
- II. The Project Authorities must ensure Offset of conventional energy requirement of not less than 2% by installation of solar panel. Overall conservation of not less than 20% is to be ensured by use of efficient energy measures.

10. Jangalpur Stone Deposit of M/s Abdul Moid Alam (Prop. : Shri Abdul Moid Alam), Village : Jangalpur, Thana : Govindpur, Thana No. : 202, Distt. : Dhanbad, Jharkhand (0.951 Ha).

(Proposal No. : SIA/JH/MIN/428727/2023).

The Consultant has requested for deferment of the project vide its letter no. CC/FL/OF/GC/011, dated 23.05.2023. Accordingly, the project is deferred to the next meeting.

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11. Mahjori Stone Deposit of M/s Margomunda Stone Mines (Partners : Shri Braj Kishor Yadav, Shri Sanoj Kumar, Md. Babar Ansari and Shri Tulsi Rai), Village : Mahjori, Tehsil : Margomunda, Distt. : Deoghar, Jharkhand (0.81 Ha).

(Proposal No. : SIA/JH/MIN/428680/2023).

The Consultant has requested for deferment of the project vide its letter no. CC/FL/OF/GC/011, dated 23.05.2023. Accordingly, the project is deferred to the next meeting.

12. Hethlikanhai Stone Deposit of M/s Shikhar Vision Stone Mines (Partners : Shri Ranjeet Kisku & Partners), Village : Hethlikanhai, Thana : Tisri, Thana No. : 218, Distt. : Giridih, Jharkhand (0.664 Ha).

(Proposal No. : SIA/JH/MIN/429625/2023).

The Consultant has requested for deferment of the project vide its letter no. CC/FL/OF/GC/011, dated 23.05.2023. Accordingly, the project is deferred to the next meeting.

13. Noamundi Township of M/s Tata Steel Limited, Village : Mahudi, Tehsil : Noamundi, Thana : Mahudi, Thana No. : 744, Distt.: West Singhbhum, Jharkhand.

(Proposal No. SIA/JH/INFRA2/429848/2023)


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

This is a case of violation which has been taken for reappraisal on 24.05.2023

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."

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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.

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

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 102nd meeting held on 21-25.03.2023 and SEIAA, Jharkhand has approved the violation ToRs in 103rd meeting held on 01st & 02nd April, 2023. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2022-23/2770/2023/21, date 12.04.2023. The final EIA / EMP submitted by PP to SEIAA on 20.05.2023 and which was forwarded to SEAC on 20.05.2023.

Noamundi Township of Tata Steel Ltd. is a building construction project under schedule 8(a) of EIA Notification, 2006 & it comprises of four residential building block and one community building.

Project Proponent have already built all building blocks having built-up area **34492.04 Sq.m.** as per approved building plan without obtaining Environment Clearance.




PARTICULAR	DETAILS
Project Name	Noamundi Township
Proponent	Tata Steel Ltd.
Type of Building	Residential Building
Latitude	22°9'32.86"N
Longitude	85°30'11.57"E
Mauza	Mahudi
Tehsil	Noamundi
Thana	Mahudi
Thana No.	744
District	West Singhbhum
State	Jharkhand
Plot Area	14281.89 Sq. m.
Plantation	Greenbelt (Tree) :2090.76 Sq. m. (15%) Greencover (Grass) : 220 Sq. m.

(Handwritten signatures and initials)

Permissible FAR	2.50				
Consumed FAR	2.10				
Permissible Ground Coverage	50.00 % i.e. 7140.94 Sq.m.				
Consumed Ground Coverage	28.57 % i.e. 4080.76 Sq.m.				
Project Cost	Rs. 113.00 Crores				
Total Built-Up Area	34492.04 sq.m.				
	Tower 1	Tower 2	Tower 3	Tower 4	Community Building
Break- Up of Built – Up Area (sq. m.)	7581.6	8915.481	7581.6	8915.481	1330.442
Number of Floor	9	9	9	9	2
Building Height	31.13 m	31.13 m	31.13 m	31.13 m	7.87 m
Building Configuration	Total Dwelling Units: 288 (2 BHK) 8 Units per floor i.e. 72 Units X 4 Blocks				
Population	1584 including 10% floating population				
Parking	96 Car Parking 288 Two Wheeler Parking Area : 4,237.85 m ²				
Municipal Solid Waste	Total Municipal Solid Waste = 864.00 Kg / Day Bio-Degradable = 345.60 Kg / Day Non-Biodegradable= 518.40Kg / Day				
Power Requirement	549 KVA Source : JSEB Power Back – Up Source with Capacity				
RWH Pits	4 Pits				
Total Domestic Water Demand	142.56 KLD				
Source of Fresh Water	Existing Water Supply System				

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Reuse of treated water for flushing	71.28 KLD
Volume of Waste Water	185.32 KLD
Capacity of STP	200.00 KLD
Utilization of Treated Water	148.26 KLD Reuse of Treated Water from STP Flushing : 71.28 KLD Dust Suppression : 10 KLD Horticulture : 10 KLD Horticulture usage (TSL sites) : 56.98 KLD
Total Water Requirement	Treated Water 91.28 + Fresh Water 142.56 = 233.84 KLD
<u>Connectivity</u>	
Railway	Noamundi Railway Station 2 Km
Airport	Sonari Airport, Airport 126 Km away & Bisra Munda Airport Ranchi 221 Km away.
Road	Kolebira – Hat Gamharia Road (SH – 04) adjacent to the project site.

LAND DETAILS :

Khata No.	Plot No.
02	597

POPULATION ESTIMATION

Construction Phase : 150 labors will attend during construction phase.

Operational Phase

Number of Residential Building Block = 4

Number of 2 BHK unit in each Block = 72

i.e. Total 2 BHK Unit = 288

As per NBC 2016 norms 5 person can be accommodate in 2 BHK Residential Unit;

Hence Estimated population = 5 X 288 = 1440

10 % Floating Population = 1440 X 10% = 144

Total Population = 1440 + 144 = 1584

ESTIMATION OF MUNICIPAL SOLID WASTE

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

Construction Phase	30 Kg / Day	12 Kg / Day	18 Kg / Day
Operational Phase	864.00 Kg / Day	345.6 Kg / Day	518.40 Kg / Day

WATER & WASTE WATER

Water Balance (KLD)		Source
Domestic	142.56	Existing Water Supply System
Flushing	71.28	Treated Water
Horticulture	10.00	Treated Water
Dust Suppression	10.00	Treated Water
Total	233.84	
Fresh Water Demand	142.56	Existing Water Supply System
Treated Water Demand	148.26	From STP

STP Calculation (KLD)			
Total Domestic Water	142.56	114.04	80% of Domestic Water is Waste Water
Total Flushing Water	71.28	71.28	100% of Flushing Water is Waste Water
Total Volume of Waste Water		185.32	
STP Capacity		200.00	

Waste Water Management (KLD)	
Volume of Treated Water from STP i.e., 80% of Waste Water	148.26
Break-Up	
Flushing	71.28
Horticulture	10.00
Dust Suppression	10.00
Horticulture usage in TSL sites	56.98

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STATUTORY CLEARANCES :


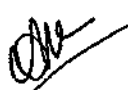


1	DFO Forest Distance	DFO, Chaibasa Forest Division vide letter no. : 139, dated 19.01.2023 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
2	DFO wildlife	: DFO, Dalma Elephant Project vide letter no. : 319, dated : 25.02.2023 certified that proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary.
3	CO certificate	: The CO, Noamundi vide vide letter no. 48, dated 01.02.2023 has mentioned the plot no. of the project is not recorded as "Jangal Jhari" in R.S. Khatiyani & Register II.
4	AAI NOC	: Airport authority of India issued NOC vide NOC ID ROUR/EAST / B/030620/451377, dated 20.04.2020.
5	Fire Department	: A fire advisory has been issued by Fire Department, Jharkhad, Ranchi vide vide memo no. 1577/Tech., dated 26.06.2019.
6	Building Plan	: Building approved by West Singhbhum Zila Parishad vide memo no. 0002, dated 10.09.2019.

On the basis of General Framework for imposing Environmental Damage Compensation issued by CPCB in December, 2022, the PAs have submitted the calculation of damage assessment which comes to Rs. 1,92,102.71 in the final EIA report.

The PAs have also calculated the damage assessment as per Methology for Assessing Environmental Compensation and Action Plan to Utilize the Fund issued by CPCB on 27.03.2019 which is Rs. 84,18,750.

The PAs have accepted the views of the Committee to provide the remediation plan and natural & community resource augmentation plan of Rs. 84,18,750 as the damage calculated as per the December, 2022 guidelines has not been appropriately done.

On the basis of above the State Level Expert Appraisal Committee (SEAC), Jharkhand recommends the amount proposed in the final EIA report i.e. Rs. 84,18,750 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 :-

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Sl. No	Particulars	Cost (In Lakhs)
1	Air Environment	15,00,000.00
2	Energy Conservation	50,00,000.00
3	Socio Economic Environment	19,18,750.00
Total Cost		84,18,750.00

- I. Total budgetary provision with respect to remediation plan and natural and community resource augmentation plan is Rs. **84,18,750**.
- II. Therefore, PAs shall be required to submit a bank guarantee of an amount of Rs. **84,18,750** 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 remedition 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 permises.
- VII. Energy conservation measures adhearing to part of ECBC norms shall be complied with.
- VIII. The penalty of Rupees **56,50,000** being 0.5% (Sou Moto) of the project cost incurred till date (Rs. **113 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 Noamundi Township of M/s Tata Steel Limited, Village : Mahudi, Tehsil : Noamundi, Thana : Mahudi, Thana No. : 744, Distt.: West Singhbhum, Jharkhand is



recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – VIII 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.
- XII. MSW Collection centre should be located in isolated and preferably unmanned area. Movement of the vehicle carrying waste should be under tarpaulin covered condition only. Route of vehicle should be such that it avoids residential areas as far as practical.
- XIII. ISO 14k EMS system standard to be followed for implementation of EMPs with MRM in place for feedback to Sr management.
- XIV. A cycling tract to be provided in residential complex so as to save on fuel and make in campus movement environment friendly.

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Day 4 : May 25th, 2023 [Thursday]

A. Deputy Commissioner –cum- District Magistrate, Ranchi or through authorized representative and M/s Crystal Consultants, Ranchi

i. Final District Survey Report (DSR) of Sand, Ranchi.

The DSR was submitted by District Magistrate –cum- Deputy Commissioner, Ranchi. He was represented by District Mining Officer, Ranchi Shri Sanjeev Kumar and Assistant Director, Geology, Ranchi Smt. Anima Xess at the SEAC meeting on 25.05.2023.

During the meeting the Committee observed that the norms of obtaining the comments of the public have not been appropriately done.

Hence, the final DSR is to be re-submitted complying all the requirements of Enforcement and Monitoring Guidelines for Sand Mining (EMGSM), 2020 / Hon'ble Apex Court in Civil Appeal no. 3661-3662/2020, Pawan Kumar vs State of Bihar & ors, Hon'ble NGT in O.A. no. 54/2022/EZ, Bhumi Adhigrahan Visthapan Avam Punarvas Kisan Samiti vs State of Jharkhand & ors.

The fresh approval by the Sub-Divisional Committee is to be incorporated in the final DSR.

B. Deputy Commissioner –cum- District Magistrate, Hazaribag or through authorized representative and M/s Rian Enviro Pvt. Ltd., Patna

i. Final District Survey Report (DSR) of Sand, Hazaribag.

The Final DSR was submitted by District Magistrate –cum- Deputy Commissioner, Hazaribag. He was represented by District Mining Officer, Hazaribag Shri Ajit Kumar and Assistant Director, Geology, Hazaribag Md. Abu Hussain at the SEAC meeting on 25.05.2023.

During the meeting the consultant M/s Rian Enviro Pvt. Ltd., Patna in the presence of DMO, Hazaribag and Assistant Director, Geology, Hazaribag presented the DSR before the Committee. The DSR was appraised considering the following aspects alongwith other conditions of Enforcement and Monitoring Guidelines for Sand Mining (EMGSM), 2020 / Hon'ble Apex Court in Civil Appeal no. 3661-3662/2020, Pawan Kumar vs State of Bihar & ors, Hon'ble NGT in O.A. no. 54/2022/EZ, Bhumi Adhigrahan Visthapan Avam Punarvas Kisan Samiti vs State of Jharkhand & ors and they have affirmed the following :

1. The final DSR submitted is duly signed by all members of the Sub Divisional Committee and the Consultant. All the pages of the DSR are signed by the authorized officer of the Sub Divisional Committee.
2. The final DSR consists of the complete potential area and is demarcated as Potential Resource Area (PRA) / Sand Leases / Ghats as per EMGSM guideline 2020.
3. The replenishment study of pre & post monsoon period is included in final DSR.
4. The final DSR had been placed in the public domain for 01 (One) month from the 13.03.2023. As per the Sub Divisional Committee no comments / observations were obtained.

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5. Demand and supply of the river bed material has been provided. The future demand for next 05 years is included in the final DSR.
6. The PRA / Sand Leases / Ghats have not been proposed on the confluence / meanders / concavities / active channels of the river.
7. Khata & Khasra numbers of the lease area certified by the concerned Circle Officer (CO) are incorporated in the final DSR.
8. The distance of PRA / Sand Leases / Ghats from the Forest / Wildlife Protected area / Birds Sanctuary/ Wildlife Sanctuary / National Park / Eco Sensitive Zone has been verified and certified by the concerned DFOs of the respective Territorial and Wildlife division.
9. A report detailing the presence of aquatic animal in the river in proximity of the proposed PRA / Sand Leases / Ghats is included in the final DSR.
10. The proposed PRA / Sand Leases / Ghats meet the siting criteria of State Pollution Control Board / SEIAA.
11. High resolution color satellite images of the proposed potential sand mining areas are included in final DSR.
12. Bulk density and specific gravity of sand sample data has been provided by NABL accredited laboratory.
13. Cluster and contiguous cluster formation as per EMGSM guidelines, 2020 has been included in the Annexures.
14. Mining is restricted to 3/4th of the river width and 60% of the mineable reserve.
15. Transportation routes for movement of sand are provided in the final DSR.
16. All the annexures as per EMGSM guidelines, 2020 are included in the final DSR.
17. An undertaking with reference to Point no. 9.3 of the EMGSM guidelines, 2020 regarding monitoring of mining near inter-district or inter-state boundary has been provided.
18. The representative of the Sub Divisional Committee along with the Consultants have affirmed that all the guidelines of EMGSM guidelines, 2020 / Hon'ble Apex Court in Civil Appeal no. 3661-3662/2020, Pawan Kumar vs State of Bihar & ors, Hon'ble NGT in O.A. no. 54/2022/EZ, Bhumi Adhigrahan Visthapan Avam Punarvas Kisan Samiti vs State of Jharkhand & ors have been followed in preparation of the final DSR.

The final DSR (sand) of District Hazaribag is recommended to SEIAA for approval.

C. Deputy Commissioner –cum- District Magistrate, Koderma or through authorized representative and M/s Rian Enviro Pvt. Ltd., Patna

i. Final District Survey Report (DSR) of Sand, Koderma.

The Final DSR was submitted by District Magistrate –cum- Deputy Commissioner, Koderma. He was represented by District Mining Officer, Koderma Shri Daroga Rai at the SEAC meeting on 25.05.2023.

The image shows several handwritten signatures and initials in black ink. From left to right, there is a large 'A', a signature that appears to be 'S. S. S.', another signature, a large 'B', and a signature that appears to be 'S. S. S.'.

During the meeting the consultant M/s Rian Enviro Pvt. Ltd., Patna in the presence of DMO, Koderma presented the DSR before the Committee. The DSR was appraised considering the following aspects alongwith other conditions of Enforcement and Monitoring Guidelines for Sand Mining (EMGSM), 2020 / Hon'ble Apex Court in Civil Appeal no. 3661-3662/2020, Pawan Kumar vs State of Bihar & ors, Hon'ble NGT in O.A. no. 54/2022/EZ, Bhumi Adhigrahan Visthapan Avam Punarvas Kisan Samiti vs State of Jharkhand & ors and they have affirmed the following :

1. The final DSR submitted is duly signed by all members of the Sub Divisional Committee and the Consultant. All the pages of the DSR are signed by the authorized officer of the Sub Divisional Committee.
2. The final DSR consists of the complete potential area and is demarcated as Potential Resource Area (PRA) / Sand Leases / Ghats as per EMGSM guideline 2020.
3. The replenishment study of pre & post monsoon period is included in final DSR.
4. The final DSR had been placed in the public domain for 01 (One) month from the 10.11.2022. As per the Sub Divisional Committee no comments / observations were obtained.
5. Demand and supply of the river bed material has been provided. The future demand for next 05 years is included in the final DSR.
6. The PRA / Sand Leases / Ghats have not been proposed on the confluence / meanders / concavities / active channels of the river.
7. Khata & Khasra numbers of the lease area certified by the concerned Circle Officer (CO) are incorporated in the final DSR.
8. The distance of PRA / Sand Leases / Ghats from the Forest / Wildlife Protected area / Birds Sanctuary/ Wildlife Sanctuary / National Park / Eco Sensitive Zone has been verified and certified by the concerned DFOs of the respective Territorial and Wildlife division.
9. A report detailing the presence of aquatic animal in the river in proximity of the proposed PRA / Sand Leases / Ghats is included in the final DSR.
10. The proposed PRA / Sand Leases / Ghats meet the siting criteria of State Pollution Control Board / SEIAA.
11. High resolution color satellite images of the proposed potential sand mining areas are included in final DSR.
12. Bulk density and specific gravity of sand sample data has been provided by NABL accredited laboratory.
13. Cluster and contiguous cluster formation as per EMGSM guidelines, 2020 has been included in the Annexures.
14. Mining is restricted to 3/4th of the river width and 60% of the mineable reserve.
15. Transportation routes for movement of sand are provided in the final DSR.
16. All the annexures as per EMGSM guidelines, 2020 are included in the final DSR.
17. An undertaking with reference to Point no. 9.3 of the EMGSM guidelines, 2020 regarding monitoring of mining near inter-district or inter-state boundary has been provided.
18. The representative of the Sub Divisional Committee along with the Consultants have affirmed that all the guidelines of EMGSM guidelines, 2020 Hon'ble Apex Court in Civil

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Appeal no. 3661-3662/2020, Pawan Kumar vs State of Bihar & ors, Hon'ble NGT in O.A. no. 54/2022/EZ, Bhumi Adhigrahan Visthapan Avam Punarvas Kisan Samiti vs State of Jharkhand & ors have been followed in preparation of the final DSR.

The final DSR (sand) of District Koderma is recommended to SEIAA for approval.

D. District Magistrate-cum- Deputy Commissioner, Dumka or through authorized representative and M/s Sathi Planners Pvt. Ltd., Ranchi

i. Final District Survey Report (DSR) of Sand, Dumka.

The Final DSR was submitted by District Magistrate –cum- Deputy Commissioner, Dumka. He was represented by District Mining Officer, Dumka Shri Krishna Kumar Kisku at the SEAC meeting on 25.05.2023.

During the meeting the consultant M/s Sathi Planners Pvt. Ltd., Ranchi in the presence of DMO, Dumka presented the DSR before the Committee. The DSR was appraised considering the following aspects alongwith other conditions of Enforcement and Monitoring Guidelines for Sand Mining (EMGSM), 2020 / Hon'ble Apex Court in Civil Appeal no. 3661-3662/2020, Pawan Kumar vs State of Bihar & ors, Hon'ble NGT in O.A. no. 54/2022/EZ, Bhumi Adhigrahan Visthapan Avam Punarvas Kisan Samiti vs State of Jharkhand & ors and they have affirmed the following :

1. The final DSR submitted is duly signed by all members of the Sub Divisional Committee and the Consultant. All the pages of the DSR are signed by the authorized officer of the Sub Divisional Committee.
2. The final DSR consists of the complete potential area and is demarcated as Potential Resource Area (PRA) / Sand Leases / Ghats as per EMGSM guideline 2020.
3. The replenishment study of pre & post monsoon period is included in final DSR.
4. The final DSR had been placed in the public domain for 01 (One) month from the 16.11.2022. As per the Sub Divisional Committee no comments / observations were obtained.
5. Demand and supply of the river bed material has been provided. The future demand for next 05 years is included in the final DSR.
6. The PRA / Sand Leases / Ghats have not been proposed on the confluence / meanders / concavities / active channels of the river.
7. Khata & Khasra numbers of the lease area certified by the concerned Circle Officer (CO) are incorporated in the final DSR.
8. The distance of PRA / Sand Leases / Ghats from the Forest / Wildlife Protected area / Birds Sanctuary/ Wildlife Sanctuary / National Park / Eco Sensitive Zone has been verified and certified by the concerned DFOs of the respective Territorial and Wildlife division.

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9. A report detailing the presence of aquatic animal in the river in proximity of the proposed PRA / Sand Leases / Ghats is included in the final DSR.
10. The proposed PRA / Sand Leases / Ghats meet the siting criteria of State Pollution Control Board / SEIAA.
11. High resolution color satellite images of the proposed potential sand mining areas are included in final DSR.
12. Bulk density and specific gravity of sand sample data has been provided by NABL accredited laboratory.
13. Cluster and contiguous cluster formation as per EMGSM guidelines, 2020 has been included in the Annexures.
14. Mining is restricted to 3/4th of the river width and 60% of the mineable reserve.
15. Transportation routes for movement of sand are provided in the final DSR.
16. All the annexures as per EMGSM guidelines, 2020 are included in the final DSR.
17. An undertaking with reference to Point no. 9.3 of the EMGSM guidelines, 2020 regarding monitoring of mining near inter-district or inter-state boundary has been provided.
18. The representative of the Sub Divisional Committee along with the Consultants have affirmed that all the guidelines of EMGSM guidelines, 2020 / Hon'ble Apex Court in Civil Appeal no. 3661-3662/2020, Pawan Kumar vs State of Bihar & ors, Hon'ble NGT in O.A. no. 54/2022/EZ, Bhumi Adhigrahan Visthapan Avam Punarvas Kisan Samiti vs State of Jharkhand & ors have been followed in preparation of the final DSR.

The final DSR (sand) of District Dumka is recommended to SEIAA for approval.

E. District Magistrate-cum- Deputy Commissioner, Palamu, Medininagar or through authorized representative and M/s Sathi Planners Pvt. Ltd., Ranchi.

i. Final District Survey Report (DSR) of Sand, Palamu, Medininagar.

The Final DSR was submitted by District Magistrate –cum- Deputy Commissioner, Palamu, Medinagar. He was represented by District Mining Officer, Palamu, Medininagar Shri Anand Kumar at the SEAC meeting on 25.05.2023.

During the meeting the consultant M/s Sathi Planners Pvt. Ltd., Ranchi in the presence of DMO, Palamu, Medininagar presented the DSR before the Committee. The DSR was appraised considering the following aspects alongwith other conditions of Enforcement and Monitoring Guidelines for Sand Mining (EMGSM), 2020 / Hon'ble Apex Court in Civil Appeal no. 3661-3662/2020, Pawan Kumar vs State of Bihar & ors, Hon'ble NGT in O.A. no. 54/2022/EZ, Bhumi Adhigrahan Visthapan Avam Punarvas Kisan Samiti vs State of Jharkhand & ors and they have affirmed the following :

1. The final DSR submitted is duly signed by all members of the Sub Divisional Committee and the Consultant. All the pages of the DSR are signed by the authorized officer of the Sub Divisional Committee.

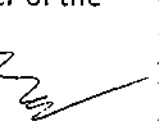
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2. The final DSR consists of the complete potential area and is demarcated as Potential Resource Area (PRA) / Sand Leases / Ghats as per EMGSM guideline 2020.
3. The replenishment study of pre & post monsoon period is included in final DSR.
4. The final DSR had been placed in the public domain for 01 (One) month from the 14.11.2022. One comment was received from three different persons. This has been addressed by Sub Divisional Committee. Details included in the DSR report as Annexure.
5. Demand and supply of the river bed material has been provided. The future demand for next 05 years is included in the final DSR.
6. The PRA / Sand Leases / Ghats have not been proposed on the confluence / meanders / concavities / active channels of the river.
7. Khata & Khasra numbers of the lease area certified by the concerned Circle Officer (CO) are incorporated in the final DSR.
8. The distance of PRA / Sand Leases / Ghats from the Forest / Wildlife Protected area / Birds Sanctuary/ Wildlife Sanctuary / National Park / Eco Sensitive Zone has been verified and certified by the concerned DFOs of the respective Territorial and Wildlife division.
9. A report detailing the presence of aquatic animal in the river in proximity of the proposed PRA / Sand Leases / Ghats is included in the final DSR.
10. The proposed PRA / Sand Leases / Ghats meet the siting criteria of State Pollution Control Board / SEIAA.
11. High resolution color satellite images of the proposed potential sand mining areas are included in final DSR.
12. Bulk density and specific gravity of sand sample data has been provided by NABL accredited laboratory.
13. Cluster and contiguous cluster formation as per EMGSM guidelines, 2020 has been included in the Annexures.
14. Mining is restricted to 3/4th of the river width and 60% of the mineable reserve.
15. Transportation routes for movement of sand are provided in the final DSR.
16. All the annexures as per EMGSM guidelines, 2020 are included in the final DSR.
17. An undertaking with reference to Point no. 9.3 of the EMGSM guidelines, 2020 regarding monitoring of mining near inter-district or inter-state boundary has been provided.
18. The representative of the Sub Divisional Committee along with the Consultants have affirmed that all the guidelines of EMGSM guidelines, 2020 / Hon'ble Apex Court in Civil Appeal no. 3661-3662/2020, Pawan Kumar vs State of Bihar & ors, Hon'ble NGT in O.A. no. 54/2022/EZ, Bhumi Adhigrahan Visthapan Avam Punarvas Kisan Samiti vs State of Jharkhand & ors have been followed in preparation of the final DSR.

The final DSR (sand) of District Palamu, Medininagar is recommended to SEIAA for approval.

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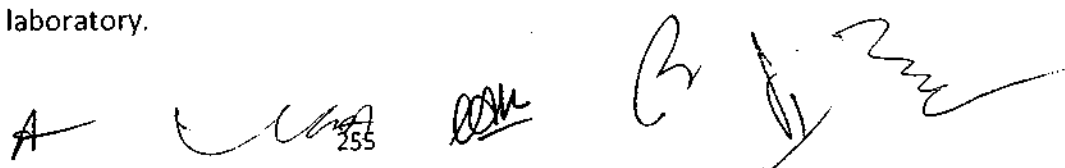
F. District Magistrate –cum- Deputy Commissioner, Jamtara or through authorized representative and M/s Sathi Planners Pvt. Ltd., Ranchi

i. Final District Survey Report (DSR) of Sand, Jamtara.

The Final DSR was submitted by District Magistrate –cum- Deputy Commissioner, Jamtara. He was represented by District Mining Officer, Jamtara Shri Dilip Kumar and Assistant Director, Geology , Deoghar Shri Vishwadeep Kumar at the SEAC meeting on 25.05.2023.

During the meeting the consultant M/s Sathi Planners Pvt. Ltd., Ranchi in the presence of DMO, Jamtara and Assistant Director, Geology , Deoghar presented the DSR before the Committee. The DSR was appraised considering the following aspects alongwith other conditions of Enforcement and Monitoring Guidelines for Sand Mining (EMGSM), 2020 / Hon'ble Apex Court in Civil Appeal no. 3661-3662/2020, Pawan Kumar vs State of Bihar & ors, Hon'ble NGT in O.A. no. 54/2022/EZ, Bhumi Adhigrahan Visthapan Avam Punarvas Kisan Samiti vs State of Jharkhand & ors and they have affirmed the following :

1. The final DSR submitted is duly signed by all members of the Sub Divisional Committee and the Consultant. All the pages of the DSR are signed by the authorized officer of the Sub Divisional Committee.
2. The final DSR consists of the complete potential area and is demarcated as Potential Resource Area (PRA) / Sand Leases / Ghats as per EMGSM guideline 2020.
3. The replenishment study of pre & post monsoon period is included in final DSR.
4. The final DSR had been placed in the public domain for 01 (One) month from the 17.11.2022. As per the Sub Divisional Committee no comments / observations were obtained.
5. Demand and supply of the river bed material has been provided. The future demand for next 05 years is included in the final DSR.
6. The PRA / Sand Leases / Ghats have not been proposed on the confluence / meanders / concavities /active channels of the river.
7. Khata & Khasra numbers of the lease area certified by the concerned Circle Officer (CO) are incorporated in the final DSR.
8. The distance of PRA / Sand Leases / Ghats from the Forest / Wildlife Protected area / Birds Sanctuary/ Wildlife Sanctuary / National Park / Eco Sensitive Zone has been verified and certified by the concerned DFOs of the respective Territorial and Wildlife division.
9. A report detailing the presence of aquatic animal in the river in proximity of the proposed PRA / Sand Leases / Ghats is included in the final DSR.
10. The proposed PRA / Sand Leases / Ghats meet the siting criteria of State Pollution Control Board / SEIAA.
11. High resolution color satellite images of the proposed potential sand mining areas are included in final DSR.
12. Bulk density and specific gravity of sand sample data has been provided by NABL accredited laboratory.



13. Cluster and contiguous cluster formation as per EMGSM guidelines, 2020 has been included in the Annexures.
14. Mining is restricted to 3/4th of the river width and 60% of the mineable reserve.
15. Transportation routes for movement of sand are provided in the final DSR.
16. All the annexures as per EMGSM guidelines, 2020 are included in the final DSR.
17. An undertaking with reference to Point no. 9.3 of the EMGSM guidelines, 2020 regarding monitoring of mining near inter-district or inter-state boundary has been provided.
18. The representative of the Sub Divisional Committee along with the Consultants have affirmed that all the guidelines of EMGSM guidelines, 2020 / Hon'ble Apex Court in Civil Appeal no. 3661-3662/2020, Pawan Kumar vs State of Bihar & ors, Hon'ble NGT in O.A. no. 54/2022/EZ, Bhumi Adhigrahan Visthapan Avam Punarvas Kisan Samiti vs State of Jharkhand & ors have been followed in preparation of the final DSR.

The final DSR (sand) of District Jamtara is recommended to SEIAA for approval.

G. Deputy Commissioner, Godda or through authorized representative.

i. Final District Survey Report (DSR) for Minor Minerals other than Sand Mining or River Bed Mining (Stone), Distt. Godda .




The Final DSR was submitted by Deputy Commissioner, Godda. He was represented by District Mining Officer, Godda Shri Meghlal Tuddu and Assistant Director, Geology, Dumka Shri Niraj Dhan at the SEAC meeting on 25.05.2023.

During the meeting the DMO, Godda and Assistant Director, Geology, Dumka presented the DSR before the Committee. The DSR was appraised in light of S.O. no. 3611 (E), dated 25.07.2018 of MoEF&CC, Govt. of India.

The final DSR had been placed in the public domain for 21 days from the 21.04.2023. As per the Sub Divisional Committee no comments / observations were obtained.

The DSR submitted is as per the format provided in the above notification. All the aspects of the notification dated 25.07.2018 were addressed in the DSR and found satisfactory.

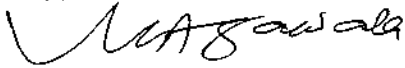
Hence, the final DSR for Minor Minerals other than Sand Mining or River Bed Mining (Stone) of District Godda is recommended to SEIAA for approval.

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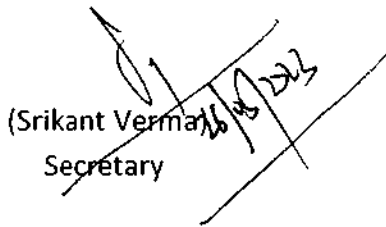
The meeting concluded with thanks to all present.



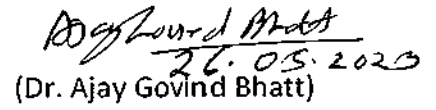
(Dr. Raju Kumar)
Member



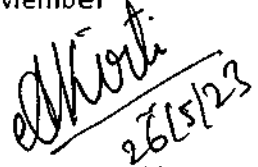
(Niranjana Lal Agarwalla)
Member



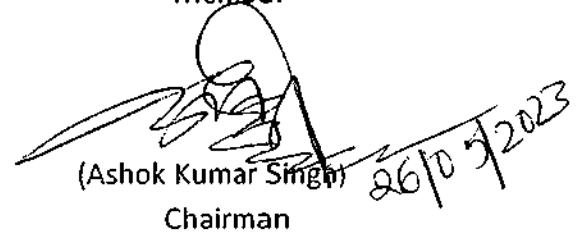
(Srikant Verma)
Secretary



(Dr. Ajay Govind Bhatt)
Member



(Dr. Kirti Avishek)
Member



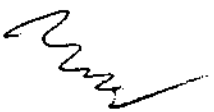
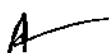
(Ashok Kumar Singh)
Chairman

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

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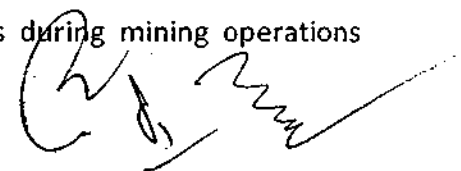
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carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC/ Central Pollution Control Board.

III. Water quality monitoring and preservation

- i. In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF&CC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.
- ii. Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug well located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- iii. Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- iv. The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations

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

- v. Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1/2006-IAJI (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.
- vi. Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEF&CC annually.
- vii. Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.
- viii. The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.

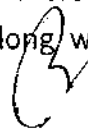
IV. Noise and vibration monitoring and prevention

- i. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
- ii. The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.
- iii. The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training,

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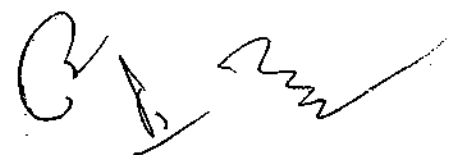
awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

V. Mining Plan

- i. The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.
- ii. The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.
- iii. The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional Office.

VI. Land reclamation

- i. The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.
- ii. The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as

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- per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.
- iii. The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.
 - iv. The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.
 - v. The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC.
 - vi. Catch drains, settling tanks and ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.
 - vii. Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.
 - viii. The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.

VII. Transportation

- i. No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural

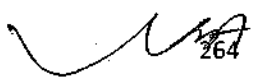



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roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.

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

VIII. Green Belt

- i. The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.
- ii. The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.
- iii. The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.
- iv. The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly



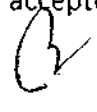

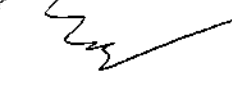
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delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.

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

IX. Public hearing and human health issues

- i. The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEF&CC Regional Office and DGMS on half-yearly basis.
- ii. The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.
- iii. The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium-Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes

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and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).

- iv. The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities ,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1),Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEF&CC annually along with details of the relief and compensation paid to workers having above indications.
- v. The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
- vi. Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.
- vii. The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.




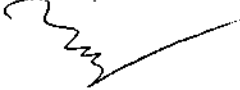
X. Corporate Environment Responsibility (CER)

- i. The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.
- ii. Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEF&CC and its concerned Regional Office.

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XI. Miscellaneous

- i. The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.
- ii. The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- iii. It shall be mandatory for the project management to submit six (06) monthly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard copies and soft copies to the regulatory authority concerned Regional Office of MoEF & CC at Ranchi and Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi / CPCB / SEIAA.
- iv. A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.
- v. The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.
- vi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- vii. The Ministry / SEIAA / SEAC may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- viii. The Ministry / SEIAA / SEAC reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- ix. The Environmental Clearance accorded shall be valid for the period of lease of the mine. The PP 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.

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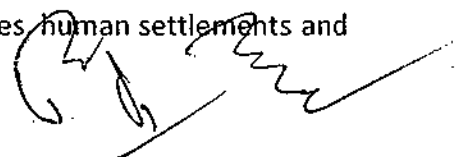
The TORs prescribed for undertaking detailed EIA study are as follows:

- 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

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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.

- xi. 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

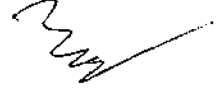
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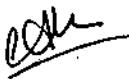


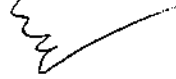


be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.

- 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.

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- 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.

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- 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.

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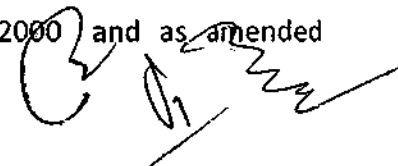
Annexure III

I. Statutory compliance

- i. 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.
- 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.
- vii. Solid waste/hazardous waste generated in the mines needs to addressed in accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules, 2016 as amended from time to time.

II. Air quality monitoring and preservation

- i. Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM10, PM2.5, SO2 and NOx. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.
- ii. The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25.9.2000 and as amended

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from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.

- iii. Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water / mist sprinkling / rain gun etc shall be carried out in critical areas prone to air pollution (with higher values of PM10/PM2.5) such as haul road, loading/ unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
- iv. The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.
- v. Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
- vi. Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.
- vii. Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.



III. Water quality monitoring and preservation

- i. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.
- ii. The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-1A.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
- iii. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The

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ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.

- iv. Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change / Regional Office.
- v. Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.
- vi. Catch and or garland drains and siltation ponds in adequate numbers and appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilised for dust suppression and green belt development and other industrial use. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.
- vii. Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (standards).
- viii. Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the standards prescribed under Water Act 1974 and Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Adequate ETP / STP needs to be provided.
- ix. The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
- x. The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake etc, shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EIA/EMP report and with due approval of the concerned State/Gol Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS or any other authority as prescribed by the law.

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- xi. The project proponent shall take all precautionary measures to ensure reversion/ riparian ecosystem in and around the coal mine upto a distance of 5 km. A reversion /riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.

IV. Noise and Vibration monitoring and prevention

- i. Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs / muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.
- ii. Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, fly rocks, noise and air blast etc., as per the guidelines prescribed by the DGMS.
- iii. The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

V. Mining Plan

- i. Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
- ii. Mining shall be carried out as per the approved mining plan(including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
- iii. No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980
- iv. Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

VI. Land reclamation

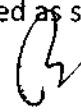
- i. Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change (MOEF&CC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
- ii. The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural /forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines

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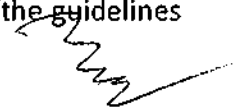


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for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.

- iii. The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the "during mining" / "post mining" land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.
- iv. Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.
- v. Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilised with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.
- vi. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

VII. Green Belt

- i. The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered/endemic flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.
- ii. Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area as soon as possible. The green belt comprising a mix of native species (endemic species should be given priority) shall be developed all along the major approach/ coal transportation roads.

VIII. Public hearing and Human health issues



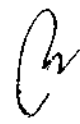

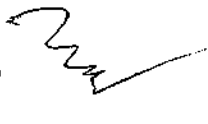
- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & it's RO on six- monthly basis.

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- ii. The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any. as amended time to time.
- iii. Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- iv. Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.
- v. The project proponent shall follow the mitigation measures provided in this Ministry'S OM No.Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

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.

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v. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

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; PM₁₀, SO₂, 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 Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIAIEMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

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- x. 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).
- xi. 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.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. 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.
- xv. 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.
- xvi. 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
- xvii. 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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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.

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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.

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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)

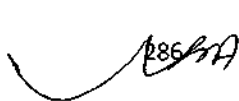



Land use during mining	Land use (ha)				
	Plantation	Water body	Public use	Undisturbed	Total
External OB dump					
Top soil dump					
Excavation					
Roads					
Built up area					
Green belt					
Undisturbed area					
	Total				

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:
- The Company must have a well laid down Environment Policy approved by the Board of Directors.
 - 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.
 - 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.
 - 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

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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.

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A: Specific Conditions:

- i. The proposal shall not attract the following Acts & Rules:
 - a. Forest Act 1980.
 - b. Wild life (Protection) Act,1972;
 - c. The Eco sensitive areas as notified under Environment (Protection) Act,1986;
 - d. Critically polluted areas as notified by CPCB and also shall not harm live stocks and humanbeings and disturb their activities.
- ii. The project proponent shall comply with the Bio-medical Waste Management Rules, 2016 and its amendments.
- 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".

Air & Noise Environment:

- i. Adequate stack height shall be provided for D.G. Sets 3 x 1100 KVA and 1x450 KVA as per CPCB norms. The power requirement of the drilling rig (~3750 KW) will be met by using the Diesel Generator (DG) sets on-board. High Speed Diesel (HSD) will be used to run the drilling rig and the DG sets during operation.
- ii. Strict measures shall be taken to control odour with appropriate odour abatement methods.
- iii. The proponent shall develop compensatory greenbelt in on shore which shall not be less than 33% of the total area of the site. Greenbelt with tall growing trees shall be developed.
- iv. Fugitive emissions from storage tanks shall be avoided by providing air condensers.
- v. The proponent should provide appropriate PPE to the persons working in the unit and suitable to their work place environment.
- vi. The proponent shall establish adequate number of air monitoring stations, including one online station, in consultation with the JSPCB and take appropriate measures to ensure that the GLC shall comply with the NAAQM norms notified by MoEF&CC, GoI on 16.11.2009.

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- vii. Measures shall be taken to comply with the provisions made under "Noise pollution (Regulation and control) Amendment Rules 2010 dated 11-01-2010 issued by MoEF.
- viii. The industry shall comply with MoEF&CC Guidelines for Disposal of Drill Cuttings and Drilling Fluid for Offshore Installation notified as per GSR 546 (E) dated 30th August 2005.
- ix. In case the commercial viability of the project is established, the company will prepare a detailed plan for development of oil and gas fields in the block and obtain fresh environmental clearance for development and production.
- x. Adequate infrastructural facilities/ equipment arrangement should be provided, so that booms, skimmers and chemical dispersants could be deployed immediately in case of oil spill from the installations/ drilling activities.
- xi. The company shall comply with all the environmental protection measures and risk mitigation measures relating to the project shall be implemented.
- xii. No pipelines or its part shall be laid in the Forest land/protected Area without prior permission/approval from the competent Authority.
- xiii. As proposed by the project proponent, zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged to any surface water body, sea and/or on land. Mobile ETP along with RO shall be installed to treat the waste water.
- xiv. During production, storage and handling, the fugitive emission of methane, if any, shall be monitored using Infra-red camera/ appropriate technology.
- xv. The project proponent also to ensure trapping/storing of the CO₂ generated, if any, during the process and handling.
- xvi. The project proponent shall make all arrangements for control of noise from the drilling activity. Acoustic enclosure shall be provided for the DG sets along with adequate stack height as per CPCB guidelines.
- xvii. Drill cuttings separated from drilling fluid shall be adequately washed and disposed in HDPE lined pit. Waste mud shall be tested for hazardous contaminants and disposed according to HWMH Rules, 2016. No effluent/drilling mud shall be discharged/discharged off into Sea. The company shall comply with the guidelines for disposal of solid waste; drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546 (E) dated 30th August, 2005.
- xviii. Oil spillage prevention and migration scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.
- xix. The project proponents shall take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At fixed installations or plants use of ground flare shall be explored, at the place of ground flaring, the overhead flaring stack with knockout drums shall be installed to minimize gaseous emissions during operation.
- xx. The project proponent shall develop a contingency plan for H₂S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H₂S detectors in locations of high risk of exposure along with self-containing breathing apparatus.
- xxi. Blow out Preventer system shall be installed to prevent well blowouts during drilling operations.

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- xxii. On completion of the project, necessary measures shall be taken for safe plugging of wells with secured enclosures to restore the drilling site to the original condition. The same shall be confirmed by the concerned regulatory authority from environment viable, a full abandonment plan shall be implemented for the drilling site in accordance with the applicable DGH/Indian Petroleum Regulations.
- xxiii. As per the ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall be completed within time as proposed.
- xxiv. No lead acid batteries shall be utilized in the project/site.
- xxv. Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules. All workers & employees shall be provided with required safety kits/ mask for personal protection.
- xxvi. Oil content in the drill cuttings shall be monitored and report & shall send to the Ministry's Regional Office.
- xxvii. The project proponent shall prepare operating manual in respect of all activities, which would cover all safety & environment related issues and measures to be taken for protection. One set of environmental manual shall be made available at the drilling site/ project site. Awareness shall be crested at each level of the management. All the schedules and results of environmental monitoring of the site should be done.

Waste Water Generation:

- i. The total waste water generation is Drilling fluids, bilge water and sewage shall be treated and discharged to the marine outfall adjacent to the rig after meeting the discharge norms specified in the EPA Rules / MARPOL. During normal course of operation the waste water will be recycled into process and incase of any eventuality.
- ii. The proponent shall provide on board STP with 50 KLD capacity for treatment of domestic waste water. The treated waste water shall be disposed as per MARPOL(residual chlorine 1 ppm).

Hazardous / Solid Wastes:

- i. Hazardous waste generated during the Rigs operations such as organic residue, waste oils, used oils etc., shall be disposed as per the Hazardous and other Wastes (Management and Tran boundary movement) Rules, 2016 and its amendments thereof
- ii. The general method of handling and disposal of solid wastes shall be as follows:
 - Drill cuttings shall be separated from the mud and shale shaker using a fine mesh and washed. Washed drill cuttings shall be discharged at the well location as per stipulated norms.

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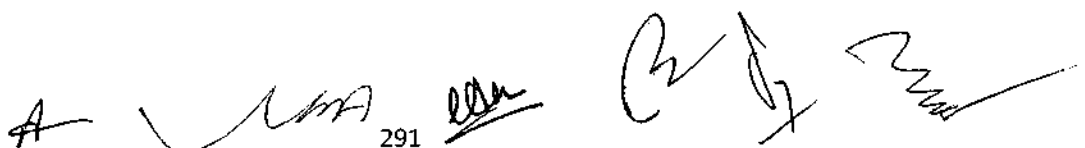
- General wastes, scrap metal and wood shall be segregated and brought back to the shore for appropriate disposal.
 - All plastic / paper waste shall be collected and brought back to the shore for disposal to scrap dealers.
 - Hazardous wastes such as waste lube/system oil from machinery, used oil from generator set shall be properly stored in drums and transported to base for safe disposal through authorized recyclers.
 - Containers of oil and other materials shall be brought back and sold to JSPCB/CPCB authorized recyclers.
 - Unused mud and drill cuttings shall be discharged to sea after dilution as per GSR 546(E) August 2005.
 - The proponent shall Ensure that disposal of Drill Cuttings should not have oil content >10 gm/kg as per GSR 546 (E).
 - On-site waste segregation shall be made by providing appropriate bins for different waste categories.
 - Non-biodegradable/Recyclable waste shall be sent to onshore base for safe disposal. Biodegradable waste shall be transported to onshore and used for composting.
 - As per Annex V MARPOL, Food waste shall be minced into pieces of < 25 mm size before disposing into the sea
- iii. The proponent should strictly comply with the E-Waste Management Rules, 2016, and report compliance.

Environment:

- i. The Project Proponent shall ensure that the transportation activity of the unit should not cause any inconvenience to the public and comply with the local norms, if any;

B: General Conditions:

- i. The project proponent shall submit the copies of the **Environmental Clearance** 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.
- ii. The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and SEIAA, Jharkhand.
- iii. The **Prior Environmental Clearance** issued to this project along with the Approved Environmental Management Plan (EMP) and the Approved DPR should be uploaded in the project's web site and be made available in the public domain.
- iv. The PEC main contents be displayed on permanent boards at the main entry of the premises and at other prominent places.
- v. The project proponent shall strictly adhere to its **Environmental Policy** approved by the SEIAA, and shall be made available in their web site.



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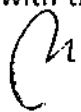

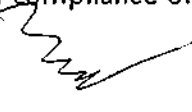
- vi. A Separate Bank account need to be started for the budget allocated for the EMP and the amount committed should be deposited before the project obtains CTE/CTO as the case may be. The amounts allocated should not be diverted for any other purpose.
- vii. The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office located at Ranchi.
- viii. The proponent before starting the operations shall obtain all other mandatory clearances from respective departments, including the CTE and CTO from the JSPCB.
- ix. The project proponent shall meticulously follow the Form-1/2 of the application; and approved EMP, for the purpose of all compliances.
- x. Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.
- xi. Occupational health check up program for the workers should be undertaken periodically. A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- xii. The project proponent shall submit *Half-yearly* reports on the status of compliance of the stipulated *Environmental Clearance Conditions* including results of monitored data (both in hard copies as well as by e-mail) to the Ministry of Environment & Forests, its Regional Office, Ranchi, SEIAA, Jharkhand, Zonal Office of Central Pollution Control Board, and Jharkhand State Pollution Control Board.
- xiii. The proponent shall upload the status of compliance of the environmental clearance conditions including results of monitored data on their websites and shall update the same periodically.
- xiv. Officials from the Regional Office of MoEF&CC, Ranchi / The SEIAA, Jharkhand through the Regional Offices of Jharkhand State Pollution Control Board, who would be monitoring the implementation of environmental safeguards, should be given full co-operation, facilities and documents/data by the project proponents during their inspection. A complete set of all the documents shall be submitted to the Regional Office to MoEF&CC, Ranchi.
- xv. SEIAA reserves the right to cancel the EC issued at any time, if EC has been obtained by the proponent through suppression of any information or furnishing false information upon which the project is appraised.
- xvi. Concealing the factual data in the compliance reports, or failure to comply with any conditions mentioned above may result in withdrawal of the EC and attract action under the provisions of Environment (Protection) Act, 1986.
- xvii. The SEIAA reserves the right to alter/modify the above conditions or stipulate any further conditions from time to time, in the interest of environment protection.
- xviii. 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.

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- xix. The project authority must strictly adhere to the stipulations made by the Central Government as part of the international conventions and Merchant Shipping Act.
- xx. The project authorities must strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended on 3rd October 1994. Prior approvals from OISD, PESO, etc. should be obtained wherever applicable.
- xxi. The project authorities must comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous and Other Wastes (Management, Handling and Transboundary) Rules, 2016 wherever applicable.
- xxii. A separate environment management cell to be set up to carry out the environment management & monitoring functions.
- xxiii. The project authorities will provide adequate funds both recurring and non-recurring to implement the conditions stipulated by the SEIAA, State Government along with the implementation schedule for all the conditions stipulated herein.
- xxiv. The implementation of the project vis-à-vis environmental action plans will be monitored by Ministry's regional office, State Pollution Control Board and Central Pollution Controlboard. A six-monthly compliance status report should be submitted to the monitoring Agencies.

C: Miscellaneous:

- a. No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendment, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate change/ SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- b. The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- c. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- d. The company shall undertake all relevant measures for improving the socio- economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco-developmental measures including community welfare measures in the near coastal area villages for the overall improvement of the environment.
- e. The environmental statement for each financial year ending 31st March in Form-5 as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of

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environmental clearance conditions and shall also be sent to the respective Regional Offices.

- f. The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at <https://parivesh.nic.in/>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
 - g. The project authorities 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 and the date of start of the project.
 - h. This environmental clearance is granted without any prejudice to final outcome of Hon'ble Supreme Court of India, Hon'ble High court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.
- xxv. 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.
 - xxvi. 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.
 - xxvii. The project proponent shall monitor the criteria pollutants level namely; PM₁₀, SO₂, 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.
 - xxviii. The Ministry/SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
 - xxix. The Ministry/SEIAA reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
 - xxx. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the public liability Insurance Act, 1991 read with subsequent amendments 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.
 - xxxi. 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
 - xxxii. 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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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



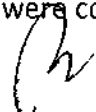


- i. Cost of project and time of completion.
- ii. Products with capacities for the proposed project.
- iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
- iv. List of raw materials required and 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, Forest and Climate Change as per OM no. F.no. IA3-22/10/2022-IA.III [E 177258], dated 08th June, 2022 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing / existing operation of the project from SPCB shall be attached with the EIA-EMP report.

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

4. Site Details




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

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

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

- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
- ii. Landuse map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (in case of projects involving forest land more than 40 ha)
- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden thereon
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.






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6. Environmental Status

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

7. Impact and Environment Management Plan

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling - in case of discharge in water body
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor- cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment.

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Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.

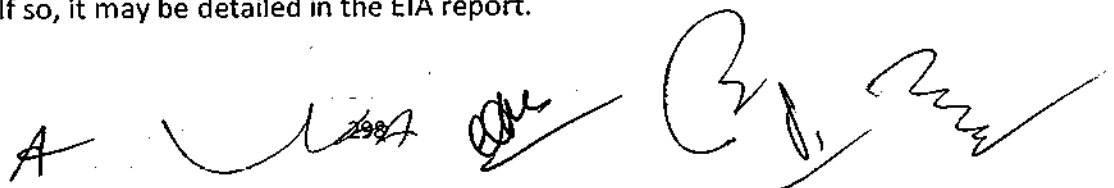
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control.
- vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement 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 2500 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.

The bottom of the page features several handwritten signatures and initials in black ink. From left to right, there is a large 'A', a signature that appears to be 'A. S. A.', another signature that looks like 'S. A.', and a large, stylized signature that could be 'B. S. A.' followed by another signature.

- 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

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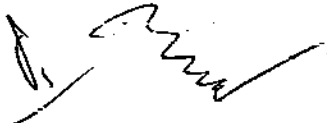




12. Details on precious metals recovery
13. Details on composition, generation and utilization of waste/fuel gases from coke oven plant and their utilization.
14. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
15. Trace metals Mercury, arsenic 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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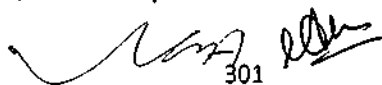
I. Statutory compliance:

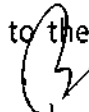
- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (incase of the presence of schedule-I species in the study area)
- iv. 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

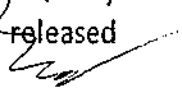
- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF) as amended from time to time; S.O. 3305 (E) dated 7th December 2015(Thermal Power Plants) as amended from time to time) 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.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- iii. The project proponent shall install system carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released

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(e.g. PM10 and PM25 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.
- vi. The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
- vii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- viii. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after *briquetting* / agglomeration.
- ix. The project proponent shall use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
- x. The project proponent shall provide covered sheds for raw materials like scrap and sponge iron, lump ore, coke, coal, etc.
- xi. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.
- xii. Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (applicable to IF / EAF) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time) 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. (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.

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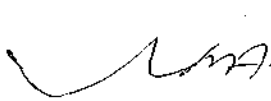




- iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- iv. Adhere to 'Zero Liquid Discharge'.
- v. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- vi. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.
- vii. 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
- viii. The project proponent shall practice rainwater harvesting to maximum possible extent.
- ix. The project proponent shall make efforts to minimise water consumption in the steel 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 Conservation measures

- i. The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.
- ii. Practice hot charging of slabs and billets/blooms as far as possible.
- iii. Ensure installation of regenerative type burners on all reheating furnaces.
- iv. 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.
- v. Provide the project proponent for LED lights in their offices and residential areas.

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VI. Waste management

- i. Used refractories shall be recycled as far as possible.
- ii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused melting Furnaces
- iii. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
- iv. The waste oil, grease and other hazardous waste shall be disposed of as per the
- v. Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
- vi. 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



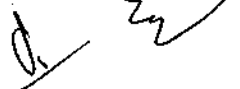
- i. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
- ii. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme 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 project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
- iii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

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 /

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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.


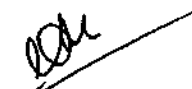

- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility 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 plants shall be implemented.
- vii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

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; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

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- 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 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.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. 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.
- x. 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).
- xi. 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.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. 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.
- xv. 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.

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- xvi. 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.

C. Other Conditions:

- i. The Authority reserves the right to add any new condition or modify the above conditions or to revoke the clearance if conditions stipulated above are not implemented to the satisfaction of Authority or for that matter for any other Administrative reason.
- ii. The Prescribed EC is valid as per Notification no. S.O. 1807(E) dated 12.04.2022 of MoEF&CC, Govt. of India.
- iii. In case of any deviation or alteration in the project proposed from those submitted to SEIAA, Jharkhand for clearance, a fresh reference should be made to SEIAA to assess the adequacy of the conditions imposed and to incorporate any new conditions if required.

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I. Statutory Compliance

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

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

ii. Air quality monitoring and preservation

- i. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
- ii. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
- iii. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM25) covering upwind and downwind directions during the construction period.
- iv. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act,

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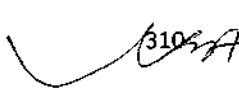



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1985. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.

- v. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
- vi. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
- vii. Wet jet shall be provided for grinding and stone cutting.
- viii. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- ix. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.
- x. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- xi. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- xii. For indoor air quality the ventilation provisions as per National Building Code of India.

III. Water quality monitoring and preservation

- i. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.
- ii. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- iii. Total fresh water use shall not exceed the proposed requirement as provided in the project details.

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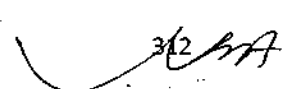



- iv. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- v. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
- vi. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- vii. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- viii. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- ix. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- x. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- xi. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
- xii. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
- xiii. All recharge should be limited to shallow aquifer.
- xiv. No ground water shall be used during construction phase of the project.
- xv. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.

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

IV. Noise monitoring and prevention

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

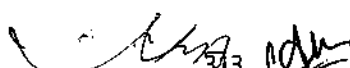



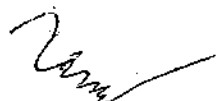
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V. Energy Conservation measures

- 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.

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- 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, 2016. Ready mixed concrete must be used in building construction.
- ix. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
- x. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

VII. Green Cover

- i. No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).
- ii. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.
- iii. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.
- iv. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

VIII. Transport

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

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

IX. Human Health Issues

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

X. Corporate Environment Responsibility

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

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

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

XI. Miscellaneous

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

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