

**MINUTES OF THE 99<sup>TH</sup> MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC), JHARKHAND HELD ON 07<sup>TH</sup>, 08<sup>TH</sup>, 09<sup>TH</sup> 10<sup>TH</sup> and 11<sup>TH</sup> DECEMBER, 2022.**

The 99<sup>th</sup> meeting of State Level Expert Appraisal Committee (SEAC), Jharkhand was held on 07<sup>th</sup>, 08<sup>th</sup>, 09<sup>th</sup> 10<sup>th</sup> and 11<sup>th</sup> December, 2022 under the Chairmanship of Shri Ashok Kumar Singh, IFS (Retd.) in the Conference Room at SEAC, Ranchi.

The following members were present:

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

SEIAA forwarded various projects to the SEAC for the technical appraisal after the last SEAC meeting held on 02<sup>nd</sup>, 03<sup>rd</sup>, 04<sup>th</sup> and 05<sup>th</sup> November, 2022. These projects have been put up for discussions. Besides, these Projects, wherein PP's were asked to provide requisite information / clarifications in the earlier meeting of SEAC, were also considered for appraisal. The Project Proponents have been asked to make technical presentation for the appraisal of their projects before the committee.

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

**Day 1 : December 07<sup>th</sup>, 2022 [Wednesday]**

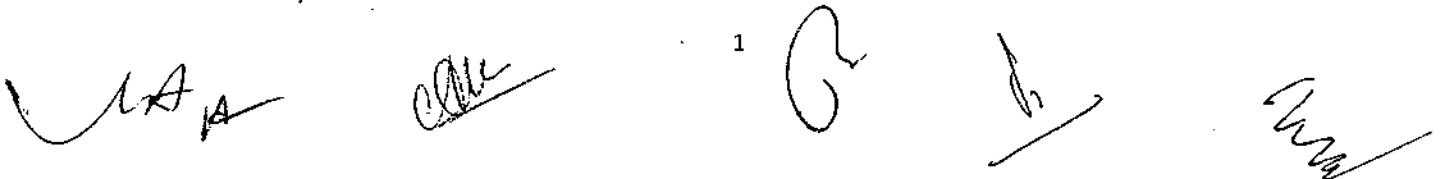
**A. Deputy Commissioner, Khunti or through authorized representative and M/s Crystal Consultants, Ranchi.**

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

The DSR was submitted by Deputy Commissioner, Khunti. He was represented by District Mining Officer, Khunti Md. Nadeem Safi and Assistant Director, Geology, Ranchi Smt. Anima Xess at the SEAC meeting on 07.12.2022.

During the meeting the consultant M/s Crystal Consultants, Ranchi submitted as follows :

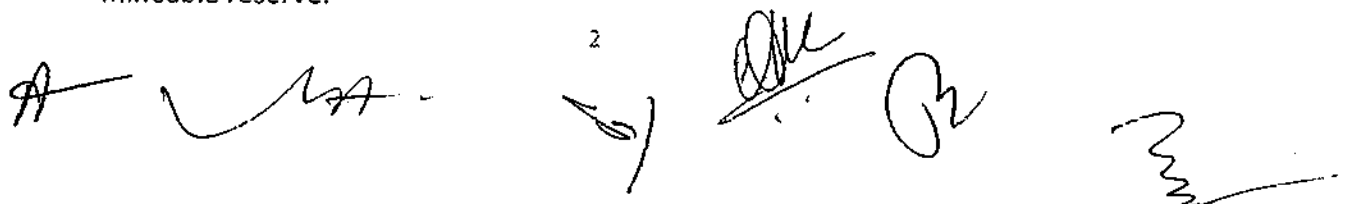
1. The DSR submitted was at a draft stage. The final DSR after approval by Sub Divisional Committee, Deputy Commissioner and incorporation of the Public comments is to be submitted for appraisal by SEAC.
2. The final DSR should be signed by all members of the Sub Divisional Committee and the Consultant involved in the preparation of the same. All pages of the DSR should be signed by the authorized officer of the DC / Sub Divisional Committee.
3. The draft DSR submitted is based only on part survey. In the submitted draft DSR the complete area of the river / rivers have not been surveyed, only some selected ghats /



leases have been surveyed. The complete potential area should be demarcated before proposing the sand leases / ghats as per EMGSM guideline 2020.

4. The field survey of pre-monsoon period is to be included in final DSR.
5. The DSR should be placed in the public domain for atleast 01 (One) month from the date of publication of the advertisement for obtaining comments of the public. The comments received shall be placed before the concerned Sub Divisional Committee for consideration. The final DSR should be submitted to SEIAA, after incorporation of all replies of the comments received from the public.
6. Demand and supply of the river bed material through market survey needs to be carried out. In addition to this, future demand for the next five years also needs to be considered to justify the number & area of the sand ghat to be included in the final DSR.
7. The sand ghats / leases have not to be proposed on the confluence / meanders / concavities / active channels of the river.
8. The Khata & Khasra (class / nature of land including "Jungle Jhari") of the lease area should be certified by the concerned Circle Officer (CO) and to be incorporated in the final DSR.
9. The distance of sand leases / ghats from the Forest / Wildlife Protected area / Birds Sanctuary/ Wildlife Sanctuary / National Park / Eco Sensitive Zone should be verified and certified by the concerned DFO's of the respective Territorial and Wildlife division.
10. The undertaking regarding presence of aquatic animal in the river in proximity of the proposed sand ghats should be verified and certified by concerned Govt. Departments like Zoological Survey of India.
11. The proposed leases / ghats should meet all the siting criteria of State Pollution Control Board / SEIAA.
12. Clear and high resolution color satellite images of the proposed potential sand mining area should be submitted with final DSR including the date of photographs / Geocoded location. Details of all such satellite imageries should be included in the final DSR.
13. The table of estimation of sand resources after pre-monsoon and post monsoon survey should be included in the final DSR.
14. All primary & secondary data should be supported with relevant references and documentary evidences in the final DSR.
15. Bulk density and specific gravity of the sand should be certified by NABL accredited laboratory.
16. Concave side of the river should be avoided for identification of sand leases / ghats.
17. KML files of Existing leases / ghats and proposed leases / ghats should be provided.
18. Cluster and contiguous cluster formation should be followed as per EMGSM guidelines, 2020.
19. Average length and width of the river should be Included and mining should be restricted to 3/4th of the river width and mining should be restricted within 60% of the mineable reserve.

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20. Transportation routes should be defined for the proposed mining sites and duly certified from the competent Authorities.
21. All the annexures given in the EMGSM guidelines, 2020 should be filled and included in the final DSR.
22. Point no. 9.3 of the EMGSM guidelines, 2020 regarding monitoring of mining near inter-district or inter-state boundary should be addressed in the final DSR, if applicable.
23. In addition to above any other applicable criteria as required under SSMG, 2016 & EMGSM guidelines, 2020 should be included in the final DSR.
24. The presentation of the final DSR at the time of appraisal by SEAC should cover all the points of SSMG, 2016 & EMGSM guidelines, 2020.

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

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

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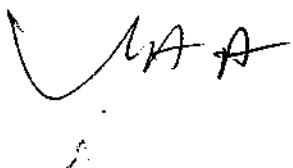
**B. Deputy Commissioner -cum- District Magistrate, Lohardaga or through authorized representative and M/s Crystal Consultants, Ranchi.**

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

The DSR was submitted by Deputy Commissioner –cum- District Magistrate, Lohardaga. He was represented by District Mining Officer, Lohardaga Sri Ramnath Ray and Assistant Director, Geology, Gumla Sri Rakesh Raushan Banna & Smt. Jaya Kerketta, Lohardaga at the SEAC meeting on 07.12.2022.

During the meeting the consultant M/s Crystal Consultants, Ranchi submitted as follows :

1. The DSR submitted was at a draft stage. The final DSR after approval by Sub Divisional Committee, Deputy Commissioner and incorporation of the Public comments is to be submitted for appraisal by SEAC.
2. The final DSR should be signed by all members of the Sub Divisional Committee and the Consultant involved in the preparation of the same. All pages of the DSR should be signed by the authorized officer of the DC / Sub Divisional Committee.
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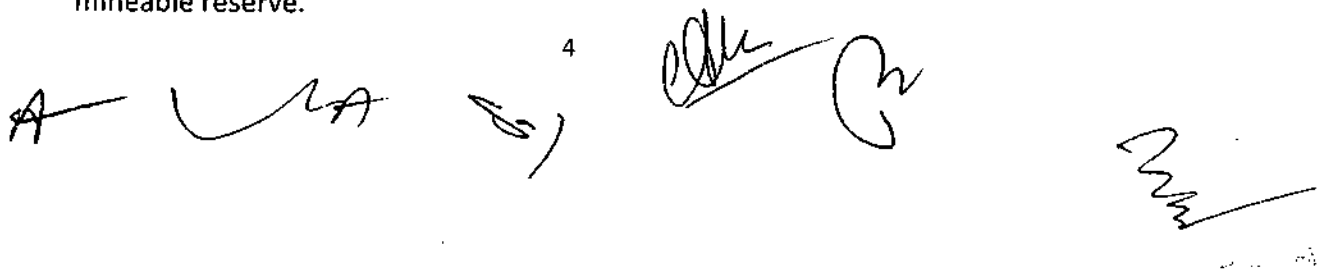
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leases have been surveyed. The complete potential area should be demarcated before proposing the sand leases / ghats as per EMGSM guideline 2020.

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5. The DSR should be placed in the public domain for atleast 01 (One) month from the date of publication of the advertisement for obtaining comments of the public. The comments received shall be placed before the concerned Sub Divisional Committee for consideration. The final DSR should be submitted to SEIAA, after incorporation of all replies of the comments received from the public.
6. Demand and supply of the river bed material through market survey needs to be carried out. In addition to this, future demand for the next five years also needs to be considered to justify the number & area of the sand ghat to be included in the final DSR.
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20. Transportation routes should be defined for the proposed mining sites and duly certified from the competent Authorities.
21. All the annexures given in the EMGSM guidelines, 2020 should be filled and included in the final DSR.
22. Point no. 9.3 of the EMGSM guidelines, 2020 regarding monitoring of mining near inter-district or inter-state boundary should be addressed in the final DSR, if applicable.
23. In addition to above any other applicable criteria as required under SSMG, 2016 & EMGSM guidelines, 2020 should be included in the final DSR.
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The Committee is of the view that the DSR should be prepared in the light of Hon'ble Apex Court in Civil Appeal no. 3661-3662/2020, Pawan Kumar vs State of Bihar & ors, Hon'ble NGT in O.A. no. 54/2022/EZ, Bhumi Adhigrahan Visthapan Avam Punarvas Kisan Samiti vs State of Jharkhand & ors and Enforcement and Monitoring Guidelines for Sand Mining 2020.

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

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### C. Consideration of Proposals

1. Integrated Municipal Solid Waste Management Facility Project of Ranchi Municipal Corporation, Village : Jhiri, Tehsil : Kanke, Distt. : Ranchi, Jharkhand.

(Proposal No. : SIA/JH/MIS/73513/2022)

Name of the consultant: Ascenso Enviro Pvt. Ltd. Noida, Uttar Pradesh

The PAs did not turn up for the appraisal. There was no intimation either from the Project Authorities or their consultant regarding not attending the meeting. A very serious view was taken by the Committee of this negligent attitude of the Project Authorities / consultant.

The consideration of the project is therefore deferred and will be taken up for appraisal after receiving specific request from PAs.

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2. Sugnu Brick Clay Deposit of M/s Dinesh Kumar Bricks, Village : Sugnu, Tehsil : Kanke, Distt. : Ranchi, Jharkhand (1.125 Ha).

(Proposal No. : SIA/JH/MIN /406153 /2022)

Project Category : B2 – Application for Environment Clearance

EC Application for : Soil 1200 m<sup>3</sup>/yr.

6000 m<sup>3</sup> during plan period

Topsoil 2524.73 m<sup>3</sup> during plan period

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

This is a new project which has been taken for appraisal on 07.12.2022

**Project and Location Details :**

Sl.	Parameter	Details	
1	Project Name	: Sugnu Brick Clay Deposit	
2	Lessee:	: M/s Dinesh Kumar Bricks, Proprietor- Mr. Ganga Ram Sahu	
3	Lease Address	: Village–Sugnu, P.S.– Sadar, District – Ranchi, Jharkhand.	
4	Lease Area	: Ha: 1.125	Acres: 2.78
5	Type of Land	: Non-Forest – Rayati Land	
6	Project Cost	: Rs. 15.00 Lakhs	
7	EMP Budget	: Capital: Rs. 3.50 Lakhs	Recurring: Rs. 2.00 Lakhs/ year Monitoring cost: Rs. 0.60 Lakhs/year
8	CSR / CER Budget	: Rs. 0.75 Lakhs	
9	New or Expansion	: New	
10	Mineable Reserves	: Cu.M.: 10969.71 Cu. M.	Tonnes: Nil
11	Mine Life	: 9 Years; Proposed (as per lease deed) – 5 years Only	
12	Manpower	: 18 Person	
13	Water Requirement	: 4.35 KLD (Drinking: 1.10 KLD, Dust Suppression & Plantation: 2.25 KLD, Other: 1.00 KLD)	
14	Water Source	: Through Authorized Tanker	
15	DG Set / power	: Not Applicable	
16	Crusher	: Not Applicable	
17	Nearest Water Body	: Major river at 1 km SE	
18	Nearest Habitation	: Jamurai – 0.19 Km (NW) direction from the mine site.	
19	Nearest Rail	: Tatisilwai Railway Station – 4.24 Km (SE)	

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	Station		
20	Nearest Airport	:	Birsa Munda Airport – 14.40 Km (SW) direction from the mine site.
21	Nearest Forest	:	Horhap RF – 6.06 Km (SE) Silwai PF – 7.08 Km (SE)
22	Road & Highways	:	NH 33 – 2.20 Km NW direction from the mine site.

#### CO-ORDINATES

1	Latitude	:	From 23° 24' 27.72" N	To 23° 24' 31.81" N
2	Longitude	:	From 85° 25' 36.37" E	To 85° 25' 42.06" E

#### LAND DETAILS :

Khata No.	Plot No.
98	1990

#### STATUTORY CLEARANCES :

1	LOI/Lease docs	:	Land agreement made.
2	CO	:	The CO, Kanke, Ranchi vide letter no. 508 (ii), dated 17.07.2020 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in Khatiyon.
3	DMO	:	DMO, Ranchi vide letter no. 17/M, dated 06.01.2022 certified that no other mining area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Division, Ranchi vide memo no. 518, dated 13.07.2020 certified that the said project is outside of Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Ranchi Forest Division vide letter no. 258, dated 18.01.2020 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. 870/M, dated 12.10.2022 has informed that this project is part of District Survey Report (DSR) of Ranchi district and accordingly necessary

		action with regard to Environmental Clearance can be taken.
7	Gram Sabha	: Gram Sabha conducted on 24.07.2019.
8	Mine Plan Approval	: Additional Director, Mines, Ranchi vide Memo No. : 182/M, dated 29.10.2020.

### WORKING DETAILS

1	Mining Method	: Opencast Manual Mining	
2	Quarry Area	: 5 years- 0.344 ha	Life of Mine - 0.344 ha
3	Waste Generation	: 5 years- Nil	Life of Mine - Nil
4	Stripping Ratio	: NA	
5	Working Days	: 200 days/year	
6	Bench: size & No	: 1m x 1m	
7	Elevation of Mine	: In 605 MSL	
8	Ground Level Elevation	: In 605 MSL	
9	Ultimate Working Depth	: In 603 MSL	
10	Water Table	: In 596 MSL and also 5 - 7 m bgl	
11	Topography of Mine	: Flat area	
12	Explosive Requirement	: Not applicable	
13	Diesel/Fuel requirement	: Not applicable due to manual mining	

### PRODUCTION DETAILS

Year	Production Bricks Clay in cum per Annum	Topsoil removable in cum for 5 years
1 <sup>st</sup>	1200	2524.73
2 <sup>nd</sup>	1200	
3 <sup>rd</sup>	1200	
4 <sup>th</sup>	1200	
5 <sup>th</sup>	1200	
<b>Total</b>	<b>6000</b>	<b>2524.73</b>

### LAND USE

Category	Existing (Acres)	Proposed Land use for current plan period	Proposed Land use for current plan period and	Conceptual Plan (ha.)
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		(acres)	lease period (Ha)	
Mining Activities	0.00	0.85	0.344	(Converted to levelled land with topsoil spread)
Topsoil storage, Road/Infrastructure/etc.	0.00	0.70	0.283	
Safety Zone(2m)/Green Belt	0.00	0.25	0.101	Area under plantation
Unutilized	2.78	0.98	0.397	-
<b>Total Area</b>	<b>2.78</b>	<b>2.78</b>	<b>1.125</b>	-

## ENVIRONMENT MANAGEMENT

### Green Belt Development

SL	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.10 Ha	250
2	Other Reclaimed Area	:	0.000	000
3	Haul /Approach Road	:	210 meters	134 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

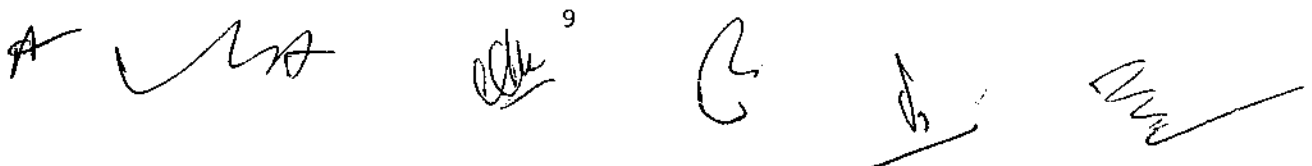
- Topsoil Generation will be 2524.73 Cu.M. during the life of Mine. Topsoil storage area is 0.02 ha. The topsoil shall be used for backfilling in the end of life of mine of the mining operation.

### Water Pollution Control Measures:

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

### Air and Noise Pollution Control Measures:

1. Dust suppression measures like spraying / sprinkling of water to keep the surface wet.



2. Overloading of the truck / tractor trolleys will not be done.

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

1. Carts or tractor-trolleys will be developed on village roads.
2. Tractors-trolleys will be well maintained and PUC certified.
3. Timely maintenance of vehicles and their silencers to minimize vibration and sound.
4. Minimum use of horns in the village area and silence zone (if any) as applicable.

**Undertaking submitted affirming:**

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

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Sugnu Brick Clay Deposit of M/s Dinesh Kumar Bricks, Village : Sugnu, Tehsil : Kanke, Distt. : Ranchi, Jharkhand (1.125 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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3. Sugnu Brick Clay Deposit of M/s Rishu Bricks, Village : Sugnu, Tehsil : Kanke, Distt. : Ranchi, Jharkhand (0.692 Ha).

(Proposal No. : SIA/JH/MIN /406012 /2022)

Project Category : B2 – Application for Environment Clearance

EC Application for : Soil 1200 m<sup>3</sup>/yr.

6000 m<sup>3</sup> during plan period

Topsoil 1545.81 m<sup>3</sup> during plan period.

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

This is a new project which has been taken for appraisal on 07.12.2022

**Project and Location Details :**

Sl.	Parameter	Details	
1	Project Name	: Sugnu Brick Clay Deposit	
2	Lessee:	: M/s Rishu Bricks, Proprietor- Mr. Vijay Kumar	
3	Lease Address	: Village–Sugnu, P.S.– Sadar, District – Ranchi, Jharkhand.	
4	Lease Area	: Ha: 0.692	Acres: 1.71
5	Type of Land	: Non-Forest – Rayati Land	
6	Project Cost	: Rs. 13.75 Lakhs	
7	EMP Budget	: Capital: Rs. 3.50 Lakhs	Recurring: Rs. 1.90 Lakhs/ year Monitoring cost: Rs. 0.60 Lakhs/year
8	CSR / CER Budget	: Rs. 0.687 Lakhs	
9	New or Expansion	: New	
10	Mineable Reserves	: 7918.48 Cu. M.	Tonnes: Nil
11	Mine Life	: 6 Years; Proposed (as per lease deed) – 5 years Only	
12	Manpower	: 15 Person	
13	Water Requirement	: 3.97 KLD (Drinking: 0.30 KLD, Dust Suppression & Plantation: 2.60 KLD, Other: 1.07 KLD)	
14	Water Source	: Supplied through authorized tankers	
15	DG Set / power	: Not Applicable	
16	Crusher	: Not Applicable	
17	Nearest Water Body	: Major river at 1 km	
18	Nearest Habitation	: Jamurai – 0.32 Km W direction from the mine site.	
19	Nearest Rail	: Tatisilwai Railway Station – 3.70 Km SE	

*A. M.*

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	Station		
20	Nearest Airport	:	Birsa Munda Airport – 14.60 Km SW direction from the mine site.
21	Nearest Forest	:	Horhap RF – 5.36 Km SE Silwai PF – 6.32 Km SE
22	Road & Highways	:	NH 33 – 3.0 Km NW direction from the mine site.

#### CO-ORDINATES

1	Latitude	:	From 23°24' 13.56" N	To 23°24' 16.35" N
2	Longitude	:	From 85° 26' 00.56" E	To 85° 26' 04.31" E

#### LAND DETAILS :

Khata No.	Plot No.
172	2333, 2334, 2335 & 2336

#### STATUTORY CLEARANCES :

1	LOI/Lease docs	:	Land agreement made.
2	CO	:	The CO, Kanke, Ranchi vide letter no. 509 (ii), dated 17.07.2020 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in Khatiyah.
3	DMO	:	DMO, Ranchi vide memo no. 16/M, dated 06.01.2022 certified that no other mining area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Division, Ranchi vide memo no. 517, dated 13.07.2020 certified that the said project is outside of Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Ranchi Forest Division vide letter no. 1263, dated 11.03.2020 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. 870/M, dated 12.10.2022 has informed that this project is part of District

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		Survey Report (DSR) of Ranchi district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	: Gram Sabha conducted on 24.07.2019.
8	Mine Plan Approval	: Additional Director, Mines, Ranchi vide Memo No. : 180/M, dated 29.10.2020.

#### WORKING DETAILS

1	Mining Method	: Opencast Manual Mining
2	Quarry Area	: 5 years- 0.34 ha Life of Mine - 0.34 ha
3	Waste Generation	: 5 years- Nil Life of Mine - Nil
4	Stripping Ratio	: NA
5	Working Days	: 200 days/year
6	Benches: size & No	: 1m x 1m
7	Elevation of Mine	: In 605 MSL
8	Ground Level Elevation	: In 605 MSL
9	Ultimate Working Depth	: In 603 MSL
10	Water Table	: In 596 MSL and also 5 - 7 m bgl
11	Topography of Mine	: Flat area
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#### PRODUCTION DETAILS

Year	Production Bricks Clay in cum per Annum	Topsoil removable in cum for 5 years
1 <sup>st</sup>	1200	1545.81
2 <sup>nd</sup>	1200	

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3 <sup>rd</sup>	1200	
4 <sup>th</sup>	1200	
5 <sup>th</sup>	1200	
<b>Total</b>	<b>6000</b>	

#### LAND USE

Category	Existing (Acres)	Proposed Land use for current plan period (acres)	Proposed Land use for current plan period and as per lease period (Ha)	Conceptual Plan (ha.)
Mining Activities	0.00	0.85	0.344	(Converted to levelled land with topsoil spread)
Topsoil Storage, Road/ Infrastructure/etc.	0.00	0.28	0.114	
Safety Zone & Plantation	0.00	0.16	0.064	Area under plantation
Unutilized Area	1.71	0.42	0.170	-
<b>Total Area</b>	<b>1.71</b>	<b>1.71</b>	<b>0.692</b>	-

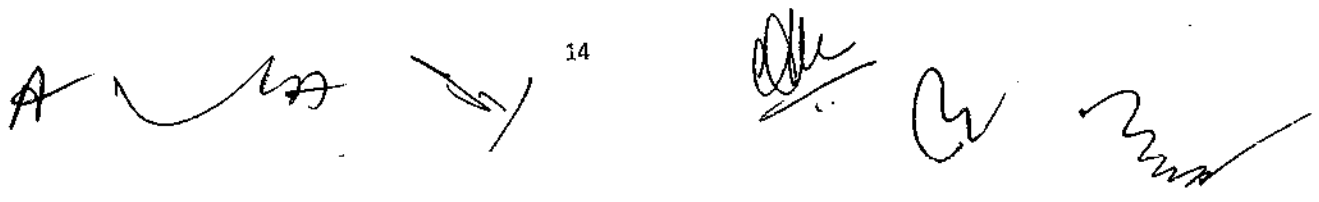
#### ENVIRONMENT MANAGEMENT

##### Green Belt Development

SL	LOCATION	Area/Length	No of Trees
1	Safety Zone	: 0.06 Ha	150
2	Other Reclaimed Area	: 0.000	000
3	Haul /Approach Road	: 330 meters	220 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.

14



### **Solid Waste Management**

- Topsoil Generation will be 1545.81 Cu.M. during the life of Mine. Topsoil storage area is 0.02 ha. The topsoil shall be used for backfilling in the end of life of mine of the mining operation.

### **Water Pollution Control Measures:**

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

### **Air and Noise Pollution Control Measures:**

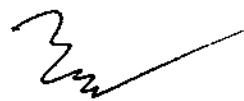
1. Dust suppression measures like spraying / sprinkling of water to keep the surface wet.
2. Overloading of the truck / tractor trolleys will not be done.

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

1. Carts or tractor-trolleys will be developed on village roads.
2. Tractors-trolleys will be well maintained and PUC certified.
3. Timely maintenance of vehicles and their silencers to minimize vibration and sound.
4. Minimum use of horns in the village area and silence zone (if any) as applicable.

### **Undertaking submitted affirming:**

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



- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If tree falling is required a permission from computed authority should be obtained.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Sugnu Brick Clay Deposit of M/s Rishu Bricks, Village : Sugnu, Tehsil : Kanke, Distt. : Ranchi, Jharkhand (0.692 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

\*\*\*\*\*

4. Armai Stone Mine of Sri Manish Kumar Lal, Village : Dumardih (Armai), Teshil + Dist. : Gumla, Jharkhand (2.430 Ha).

This mine was granted Environmental Clearance vide letter no. EC/SEIAA/2014-15/480/2014/2434, dated 30.12.2015.

Subsequently, the above EC was revoked by SEIAA vide letter no. 608, dated 04.11.2019.

The reason for revoking of EC was on the basis of letter no. 1065, dated 24.09.2019 by DFO, Wildlife Ranchi stating that the project falls under the ESZ of Palkot Wildlife Sanctuary.

The Project Authorities requested the Wildlife DFO Ranchi to re-examine the location of the site w.r.t . ESZ of Palkot Wildlife Sanctuary. SEIAA also made a similar request to DFO, Wildlife Ranchi vide letter no. 25, dated 16.01.2020 in response to the letter of request from the PAs to SEIAA.

During the re-examination of the documents it was evidenced that the lease falls under Mauza Armai which is outside of the ESZ of Palkot Wildlife Sanctuary. It was also clarified that the letter no. 1065, dated 24.09.2019 issued by DFO, Wildlife Ranchi as it was mistakenly taken that the lease was situated in Mauza Dumardih instead of Mauza Armai.

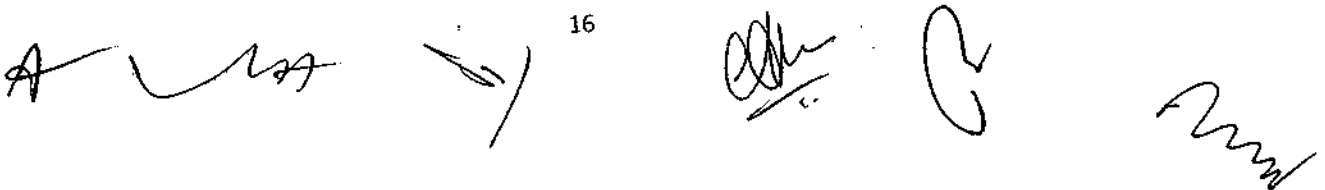
The DFO, Wildlife Ranchi vide letter no. 44, dated 15.01.2021 confirmed that the lease being located in Mauza Armai does not attract the provisions of ESZ of Palkot Wildlife Sanctuary.

The Deputy Commissioner, Gumla vide letter no. 41 / M, dated 08.11.2020 requested SEIAA to consider withdrawal of the revoking order and reinstate the EC granted to the project.

The above facts were placed before the Committee for examination.

After consideration of all the documents and facts the Committee hereby recommends withdrawal of the revoking order and reinstate the EC issued to project vide letter no. EC/SEIAA/2014-15/480/2014/2434, dated 30.12.2015.

\*\*\*\*\*

The page contains several handwritten signatures and initials. On the left, there is a signature that appears to be 'A' followed by a flourish. In the center, there is a signature that looks like 'S' with a diagonal line. To the right of that, there is a signature that looks like 'C' with a flourish. Further right, there is a signature that looks like 'B' with a flourish. On the far right, there is a signature that looks like 'A' with a flourish.

Day 2 : December 08<sup>th</sup> , 2022 [Thursday]

**Consideration of Proposals**

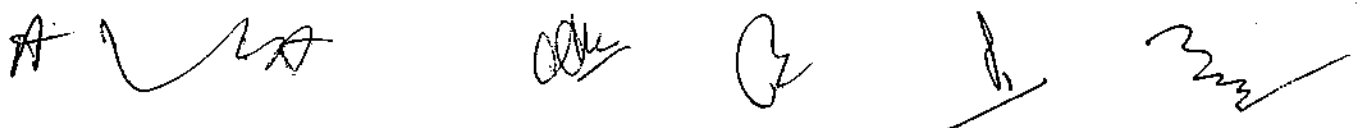
**A. Corrigendum EC letter for :**

- i. Rajhara North (Central & Eastern) Coal Mine Opencast Project of M/s Fairmine Carbons Pvt. Ltd., Mouza : Rajhara & Pandwa, Thana : Nawa Bazar & Pandwa, Thana no. : 132 & 198, Distt. : Palamu, Jharkhand (116.80 Ha).

(Proposal no. : SIA/JH/CMIN /294308/2022)

The PA's vide online application no. SIA/JH/CMIN /294308/2022 has requested for necessary correction in Environmental Clearance issued vide letter no. EC/SEIAA/2022-23/2573/2022/278, dated 27.10.2022 with regard to correction in boundary Coordinates and lease address, the revised details is being given below :

SI	Parameter	Details	
1	Project Name	: Rajhara North (Central & Eastern) Coal Block Opencast Project	
2	Lessee:	: M/s Fairmine Carbons Pvt. Ltd.	
3	Lease Address	: Mouza- Pandwa & Rajhara Block- Pandwa & Nawabazar, PS- Padwa ,Dist.: Palamau, Jharkhand Zilla Parisad: PO & P.S – Pandwa District: Palamau, Jharkhand	
4	Lease Area	: 116.80 Ha	Acres: 288.62
5	Type of Land	: GM & Raiyati	
6	Project Cost	: 126 crores	
7	New or Expansion	: Amendment	
8	Mineable Reserves	: 15.609 MT	
9	Mine Life	: 22 years	
10	Man power	: 208	
11	Water Requirement	: Total 234 KLD for various purposes. Water required for - • • Manpower 10 KLD • • Plantation 80 KLD	







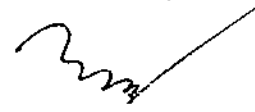
			<ul style="list-style-type: none"> <li>• Dust suppression in Mines and for approach road 120 KLD</li> <li>• Other Uses 4 KLD</li> <li>• Quarters for staff 10 KLD</li> <li>• Misc. 10 KLD</li> </ul>
12	Water Source	:	Dug wells / Bore wells
13	DG Set / power	:	DG sets (2 x 500KW)
14	Crusher	:	300 TPH
15	Nearest Water Body	:	Sadabah River
16	Nearest Habitation	:	Pandwa and Rajhara
17	Nearest Rail Station	:	Kajri (4 km)
18	Nearest Air Port	:	Ranchi(175 Km)
19	Nearest Forest	:	None
20	Road & Highways	:	NH-75

#### CO-ORDINATES

1	Latitude		From N 24°09'42"	To N 24°10'08"
2	Longitude		From E 84°02'48"	To E 84°04'07"

#### Background of the project :

1. Pursuant to e-auction conducted by Ministry of Coal, M/s Fairmine Carbons Pvt. Ltd. became the successful bidder and subsequently block was vested vide Vesting Order no. NA-104/11/2020-NA dt.03.03.2021.
2. Allottees got Mining Plan approved with capacity of 0.75 MTPA by Ministry of Coal vide-MoC letter no. 13016/52/2008-ca-j (part) dt 16/12/2011.
3. Earlier SEIAA issued a TOR for project this AMP area of 117.80 vide its Letter No. : EC/SEIAA/2021-22/2378/2021/107, dated 14/08/2021.
4. The project area was reduced to 116.80 ha against 117.80 ha in revision of Mine Plan (August 2011) as :-
  - a. 6.95 ha area (on east of the allotted block), which was previously included for infrastructure facilities was excluded during boundary certification from CMPDI.
  - b. Also Ministry of Coal instructed that the area left between Geological Boundary and Proposed Mining Lease Boundary should be the part of proposed Mining Lease and it cannot be left, therefore Project Boundary has been extended upto the Geological Boundary and 5.95 ha area was added to the Project boundary.

A     

5. Revised Mine Plan Approved by the Ministry of Coal in a meeting dated : 13/04/2022.
6. Subsequently SEIAA issued a ToR (Amendment) vide its Letter No. EC/SEIAA/2022-23/2573/2022/148, dated 18/06/2022.
7. A meander of Sadabah River will be diverted before end of 3<sup>rd</sup> year of mining. PP has approached Water Resource Department, Govt. of Jharkhand & WRD (GOJ) recommended the proposal for preparation of DPR & model testing vide Letter No. : 3/PMC/Work/465/2021-31/Ranchi dated : 19/01/2022. DPR & model testing report has been prepared and vetted by IIT, Roorkee & the same was submitted to WRD vide Letter No. : FCPL/RNC/2021-22/061 dated 18/08/2022.
8. NH-75 will be diverted before end of 17<sup>th</sup> year of mining. Nominated authority MOC has requested Secretary MoRTH to re-alignment of NH – 75 vide DO Letter : NA-104/11/2020-NA dated : 02/07/2021.

#### LAND DETAILS

**Mauja: Rajhara, Thana & Thana No.: Nawa Bazar(132), Anchal: Nawa Bazar, District: Palamu (Daltonganj) Area 13.43 Ha.**

**Khata No.:-**

92,136,222,237,320,328

**Plot No.:-**

1677(P), 1607, 1609, 1610, 1612, 1613, 1611, 1642(P), 1606, 1608, 1600(P), 1678, 1683(P), 1625(P), 1597(P), 1604, 1618(P), 1614(P), 1643, 1603(P), 1605(P), 1679(P)

**Mauja: Pandwa, Thana & Thana No.: Pandwa(198), Anchal: Pandwa, District: Palamu (Daltonganj) Area 103.37 Ha.**

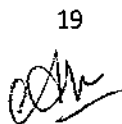
**Khata No. :-**

3,4,6,7,10,14,15,17,19,21,25,27,28,29,34,36,44,47,53,54,57,59,60,64,68,74,75,80,81,87,88,92,93, 97,102,107,108,109,110,112,117,123,127,129,130,131,132,136,140,144,146,148,149,151,152,156, 157,158,161,164,168,172,177,182,184,187,188,192,201,206,211,214,216,219,220,222,224,226,2 27,235,236,240,242,243,244,247,251,253,256,261,263,264,266,267,268,270,272,273,274,275,277, 278,280,281,285,286,288,290,291,293,295,296,297,298,299,300,301,304,305,306,307,308,309,3 11,312,313,314,318,319,320,322,323,326

**Plot No. :-**

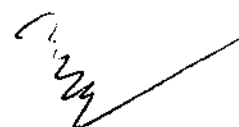
48(P), 571(P), 572, 573(P), 578(P), 579(P), 657(P), 658(P), 659, 660, 661, 662, 663, 664(P), 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680(P), 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697(P), 698(P), 700(P), 706(P), 707(P), 742(P), 743(P), 744(P), 745(P), 746(P), 747(P), 751(P), 758(P), 759(P), 760(P), 767(P), 768, 769, 770(P), 778(P), 779, 780(P), 781, 782,











783, 784, 785, 786, 787, 788, 789, 790, 791(P), 801(P), 802(P), 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837(P), 838, 839(P), 842(P), 843(P), 943(P), 944, 945, 946(P), 947(P), 953(P), 954(P), 955(P), 956(P), 957(P), 958, 959(P), 960(P), 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000, 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1015, 1016, 1017, 1018, 1019, 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1031(P), 1032(P), 1033, 1034, 1035, 1036, 1037, 1038, 1039, 1040, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1050, 1051, 1052, 1053, 1054, 1055, 1056, 1057, 1058, 1059, 1060, 1061, 1062, 1063, 1064, 1065, 1066, 1067(P), 1068(P), 1069, 1070, 1071, 1072, 1073, 1074, 1075, 1076, 1077, 1078, 1079(P), 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099(P), 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109(P), 1110, 1111(P), 1112(P), 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1120, 1121, 1122, 1123, 1124, 1125, 1126, 1127, 1128, 1129, 1130, 1131, 1132, 1133, 1134, 1135, 1136, 1137, 1138, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1150, 1151, 1152, 1153, 1154, 1155, 1156, 1157(P), 1158, 1159, 1160, 1161, 1162, 1163, 1164, 1165, 1166, 1167, 1168, 1169, 1170, 1171, 1172(P), 1173, 1174, 1175, 1176, 1177, 1178, 1179, 1180(P), 1181, 1182(P), 1183(P), 1185(P), 1192(P), 1193(P), 1194, 1195(P), 1212(P), 1214(P), 1215, 1216, 1217, 1218(P), 1219, 1220, 1221, 1222, 1223, 1224, 1225, 1226(P), 1241(P), 1242(P), 1243, 1244, 1245, 1246, 1247, 1248(P), 1250, 1251, 1252, 1253, 1254, 1255(P), 1256(P), 1257, 1258, 1259, 1260, 1261, 1262, 1263, 1264, 1265, 1266, 1267, 1268, 1269, 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278, 1279(P), 1280(P), 1283(P), 1284(P), 1285(P), 1368(P), 1470(P), 1471(P), 1472(P), 1473, 1474, 1475, 1476, 1477, 1478, 1479, 1480, 1481, 1482, 1483, 1484, 1485, 1486, 1487(P), 1488, 1492(P), 1898, 1900(P)

### Working Details

1	Mining Method	:	Semi-Mechanized Opencast Mining Method	
2	Quarry Area	:	89.28 ha	Life of Mine -22 YEarS
3	Waste Generation	:	34.1 Cu.M	Life of Mine - 22 Years
4	Stripping Ratio	:	2:1	
5	Working Days	:	300 Days	
6	Benches: size & No	:	Average height of working benches 10m Average width of working benches 10m to15m	
7	Elevation of Mine	:	192.10 m to 212 m	
8	Ground Level Elevation	:	192.10 m to 212 m	

*A* *USA* *→* *ADK* *B* *mm*

9	Ultimate Working Depth	:	86 AMSL
10	Water Table	:	PRE-MONSOON 14.12 M BELOW BGL POST MONSOON 10.07 M BGL.
11	Topography of Mine	:	Almost flat having a gentle southerly slope.
12	Explosive Requirement	:	350 ton/year
13	Diesel/Fuel requirement	:	1252 KL/year (4.17 KL/day)

### Production Details

Year		Coal Production Schedule			OB MM3	SR
Year of Operation	Calendar Year	UG	OC	Total		
1	2025-26	0	0.3	0.3000	0.62	2.0667
2	2026-27	0	0.75	0.7500	1.44	1.9200
3	2027-28	0	0.75	0.7500	1.20	1.6000
4	2028-29	0	0.75	0.7500	1.20	1.6000
5	2029-30	0	0.75	0.7500	1.40	1.8667
6	2030-31	0	0.75	0.7500	1.71	2.2800
7	2031-32	0	0.75	0.7500	1.69	2.2533
8	2032-33	0	0.75	0.7500	1.69	2.2533
9	2033-34	0	0.75	0.7500	1.69	2.2533
10	2034-35	0	0.75	0.7500	1.69	2.2533
11	2035-36	0	0.75	0.7500	1.50	2.0000
12	2036-37	0	0.75	0.7500	1.50	2.0000
13	2037-38	0	0.75	0.7500	1.50	2.0000
14	2038-39	0	0.75	0.7500	1.50	2.0000
15	2039-40	0	0.75	0.7500	1.50	2.0000

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*AKH*

*G*

*J*

*M*

16	2040-41	0	0.75	0.7500	1.50	2.0000
17	2041-42	0	0.75	0.7500	1.50	2.0000
18	2042-43	0	0.75	0.7500	1.50	2.0000
19	2043-44	0	0.75	0.7500	1.50	2.0000
20	2044-45	0	0.75	0.7500	1.50	2.0000
21	2045-46	0	0.75	0.7500	1.50	2.0000
22	2046-47	0	0.3090	0.3090	0.57	1.8447

Note: Calendar Plan/Production Plan for the entire life of the mine.

**Proposed Land use**

Type	Land use (Proposed)	Land Use (End of Life)	Land Use (Post Closure)						
			Agricultural land	Plantation	Water Body	Public / Company Use	Forest Land (Returned)	Undisturbed	Total
Excavation Area	89.28								
Backfilled Area		73.51	73.51						73.5100
Excavated Void		15.77			15.77				15.7700
Without Plantation									
Top Soil Dump									
External Dump									
Safety Zone	5.95	5.95						5.95	5.9500
Haul Road between quarries									
Road diversion	0.92	0.920				0.920			0.9200

*A* *W* *S* *PK* *Q* *Am*

Diversion Or Below River  Or Nala Or Canal	4.69	4.690			4.69 0				4.6900
Settling Pond	0.50	0.500	0.500						0.5000
Road And Infrastructure Area	2.71	2.710	2.710						2.7100
Rationalization Area									
Garland Drains									
Embankment	0.84	0.840				0.840			0.8400
Greenbelt	11.91	11.910		11.910					11.9100
<b>TOTAL</b>	<b>116.80</b>	<b>116.80</b>							<b>116.80</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development

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

### Solid Waste Management

- Waste Generation will be 34.1 Cu.M. during the life of Mine. The Waste generated shall be backfilled.

### Water Quality Management

- Ground Water will be intersected and in this respect we are under process for NOC from CGWA

#### 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.

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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.
- **For Nawa Bazar :** Deputy Director, Palamu Tiger Project, North Division, Medinagar vide letter no. 339, dated 08.04.2022 certified that the National Park & Sanctuary is not within 10 km from project site and proposed project is not situated in any ESZ.
  - **For Pandwa :** Deputy Director, Palamu Tiger Project, North Division, Medinagar vide letter no. 338, dated 08.04.2022 certified that the National Park & Sanctuary is not within 10 km from project site and proposed project is not situated in any ESZ.
  - **For Nawa Bazar:** DFO, Palamu Division vide letter no. 1860, dated 22.06.2021 certified that the distance of reserved / protected forest is 250 m from proposed project site.
  - **For Pandwa :** DFO, Palamu Division vide letter no. 1861, dated 22.06.2021 certified that the distance of reserved / protected forest is 250 m from proposed project site.
  - The CO, Pandwa vide memo no. 242, dated 07.07.2021 & The CO, Nawa Bazar vide letter no. 58, dated 02.03.2021 has mentioned all plot & khata no. of the project is not recorded as "Jangle Jhari" in R.S Khatiyar & Register II
  - The Member Secretary, JSPCB has forwarded the proceeding of Public Hearing vide Ref. no. PC/PH/RNC/01/2022/B-1933, dated 16.09.2022.

### Sadabah River Diversion

*A meander of Sadabah River will be diverted before end of 3<sup>rd</sup> year of mining. PP has approached Water Resource Department, Govt. of Jharkhand & WRD (GOJ) recommended the proposal for preparation of DPR & model testing vide Letter No. : 3/PMC/Work/465/2021-31/Ranchi dated : 19/01/2022. DPR & model testing report has been prepared and vetted by IIT, Roorkee & the same was submitted to WRD vide Letter No. : FCPL/RNC/2021-22/061 dated 18/08/2022. Sadabah River occupies 5.95 Ha. of land within lease area.*

Project Proponent will ensure that a safety barrier of 15 m on both side of the river will be maintained and no mining activity will be carried out in the safety barrier. After getting the

permission for diversion of said river from the competent authority, the copy of the permission for diversion shall be submitted to SEIAA/SEAC, Jharkhand alongwith the 06 monthly compliance report.

**NH-75 Diversion**

NH-75 will be diverted before end of 17<sup>th</sup> year of mining. Nominated authority MOC has requested Secretary MoRTH to re-alignment of NH – 75 vide DO Letter : NA-104/11/2020-NA dated : 02/07/2021.0.92 Ha. + 5.85 Ha. (Safety Barrier) i.e. 6.77 Ha. Area involved in this diversion of NH – 75.

Project Proponent will ensure that a safety barrier of 45 m on both side of NH 75 will be maintained and no mining activity will be carried out in the safety barrier. After getting the permission for diversion of NH 75 from the competent authority, the copy of the permission for diversion shall be submitted to SEIAA/SEAC, Jharkhand alongwith the 06 monthly compliance report.

**Land**

Private Land- Private Land will be acquired after obtaining prior permission under CNT 1908 and will be registered.

Government Land (GM)- Application for transfer of GM land is applied vide FCPL/DTO/20-21/011 (GM AAM), FCPL/DTO/20-21/012 (GM KHAS) for Nawa Bazar Block & FCPL/DTO/20-21/022 (GM AAM), FCPL/DTO/20-21/023 (GM KHAS) for Pandwa Block, process of transfer of land is initiated by GOJ

The SEAC considered the same and recommends for issuance of corrigendum EC with corrected details as stated above. Rest other terms & conditions mentioned in the previous EC letter no. EC/SEIAA/2022-23/2573/2022/278, dated 27.10.2022 shall remain the same.

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- ii. Expansion of proposed Project “Infinity Sapphire Square / Mall of Ranchi” of M/s Pranami Estates Pvt. Ltd. at Ratu Road, Tehsil : Ranchi Sahar, Distt. : Ranchi, Jharkhand.

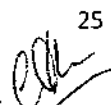
(Proposal No. : SIA/JH/MIS /294388 /2022).

The PA's vide online application no. SIA/JH/MIS /294388 /2022 has requested for necessary correction in Environmental Clearance issued vide letter no. EC/SEIAA/2022-23/2643/2022/283, dated 27.10.2022 with regard to correction in Parking details, the revised details is being given below :

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

EC Application for: Expansion of proposed project: Total built-up area is 27783.41 sq m. (Existing B.U.A-25819.44 sq.m. and Expansion-1963.97 sq.m).



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Name of the consultant: P & M Solution, Noida

Expansion of proposed project "Infinity Sapphire Square/ Mall of Ranchi" at Plot No-171- 174 on Ratu Road, Town-Ranchi, Tehsil-Ranchi Sahar, District-Ranchi, Jharkhand by M/s Pranami Estates Pvt. Ltd. Project involves development of 96 no.of commercial shops and cinema hall with 692 seats with ancillary facilities on a plot area of 5487.57 m<sup>2</sup>. Previous Built-up area of the project is 25819.44 for which Environment clearance has been obtained vide letter no. EC/SEIAA/2014-15/523/2014/846 dated 30.04.2015. The project is going for expansion and the total Built-up area of the project after expansion is 27783.41 sq.m. Green area of 823.13 m<sup>2</sup> (15% of plot area) is being provided.

**Project and Location Details :**

Parameters	Description	
Plot Area	5487.57 sq. m. (approx. 1.35 acre)	
Project Cost	INR 59 Crores	
Built-up Area (@ 3.32 F.A.R)	27783.41 sq. m.	
Green Area (@ 15 % of plot area)	823.13 sq m	
Population	1700	
Water Requirement	71 KLD	
Fresh Water Requirement	21 KLD	
Wastewater Generation	55 KLD	
STP Capacity	70 KLD	
Total Municipal Waste	361 kg/day	
Power Requirement	2500 KVA (Jharkhand State Electricity board)	
DG Sets	3 no. of DG set of Total 2645 KVA (2*1010 +1*625) kVA	
RWH Pits	02 no.	
Parking Area	<b>Vehicle Type</b>	<b>No.</b>
	Two Wheelers	70
	Cars	139
	Cycle	100

*(Handwritten signatures and marks)*

	Other vehicles (loading & unloading)	1
	<b>Total</b>	<b>310</b>
Connecting road	Road (Adjacent, N direction) SH 2 ( 0.29 km, N)	
National Highway	NH 39 (8.19,W)	
Nearest Railway Station	Ranchi Junction Railway Station (3.67 km, S)	
Airport	Birsa Munda Airport (6.83 km, S)	
Nearest Hospitals	Nagar Nigamdevkamal (0.17 km, NE) Vivekananda Hospital (1.03km, NW)	
Nearest Water Bodies	Kanke Dam (1.60 km, NE) Ranchi Lake (0.89km, S) Subernekhya River (7.4 km, E) Potpoto River (5.28 km, N) Jumar River (7.52 km, N)	

**Plot Details**






M.S. Plot No.	Area
171, 172, 173 & 174	135.60 (Decimal)

**CO-ORDINATES :**

S. No.	Latitude	Longitude
i.	23°22'44.26"N	85°18'52.60"E
ii.	23°22'44.06"N	85°18'53.82"E
iii.	23°22'39.85"N	85°18'53.33"E
iv.	23°22'40.27"N	85°18'51.44"E

**Area Summary :**

S. No.	Description	Previous area (sq m)	Proposed area after expansion (sq m)	Expansion area (Previous area- Proposed area)(sq m)
1.	Plot Area	5487.57	5487.57	-
2.	Road widening area	147.52	147.52	-

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3.	<b>Net Plot area</b>	5340.05	5340.05	-
4.	Ground Coverage	2663.71 (49.88%)	2812.50(52.66%)	148.79 (2.78%)
5.	FAR Commercial	16222.16 (@2.95)	18222.75 (@3.32)	8662.09
6.	Non-FAR Area including basement area	9597.28	9560.66	-36.62
7.	<b>Built-up Area</b>	<b>25819.44</b>	<b>27783.41</b>	1963.97
8.	Green Area (@of plot area)	639.516 (11.65%)	823.13(15%)	183.61 (3.35 %)
9.	Road + Paved area	2036.98 (37.11%)	1851.94 (33.74%)	-185.04 (-3.31%)
10.	Basement area	7145.92	6641.78	-
11.	Height	32.40	33.90	-
12.	No. of Floors	B1+B2+SB+G+6	B1+B2+SB+G+6	-
13.	No of shops in commercial area (Carpet area-7954.84)	135	96	-39
14.	No. of Seat in Theater (Cinema Hall)	692	692	-

**Statutory Clearances :**

1	DFO Forest Distance	:	DFO, Ranchi Forest division vide letter no. 1467, dated 18.04.2022 certified that the distance of reserved/protected forest is more than 250 m from proposed project site.
2	DFO wildlife	:	DFO, Wildlife division vide letter no. 372, dated 20.04.2022 certified that national park & sanctuary is not within 10 km from the project site and proposed project is not situated in any ESZ.
3	CO certificate	:	The CO, Shahar, Ranchi vide letter no. 327, dated 09.04.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyar & Register II.
4	AAI NOC	:	Airport authority of India issued NOC vide NOC ID AAI/ER/NOC(453/I2)/2639-2641, dated 01.10.2012 (Previous) and NOC ID AAI/ER/NOC/(453/I2)-10/184 dated 29.09.2017 (NOC extension).
5	Fire Department	:	A Fire Advisory has been issued by Fire Department, Jharkhand Ranchi vide letter no. 155, dated 28.04.2014.
6	Building Plan	:	Municipal Corporation has approved building plan vide B.P. no. 2013/1058 dated 06.09.2014 and building plan has been revised vide B.P. case no. BP02/2013/1058(Revision) dated - 18.03.2021
7	CTE from JSPCB	:	Consent to Establish (CTE) issued by JSPCB vide Ref. no. : GJ673, dated 14.12.2015.
8	Previous EC Detail	:	The Environmental Clearance has been issued by SEIAA, Jharkhand vide letter no EC/SEIAA/2014-15/523/2014/846, dated : 30.04.2015

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9	Certified Compliance Report	:	Jharkhand State Pollution Control Board has certified the compliance report vide ref. no. 664, dated 25.08.2022.
10	CGWA	:	Ground water will not be used without taking permission from competent authority.

### Water and waste water Requirement Details

Category	Population/Area (sq m)/Capacity	Standard (LPCD)	Water Requirement (KLD)	Fresh Water Requirement (KLD)	Recycled Water requirement(KLD)
<b>Domestic</b>					
Staff	1008	45	46	14	32
Visitors	692	15	11	7	4
<b>Total Domestic Water Demand</b>			<b>57</b>	<b>21</b>	<b>36</b>
Landscape	823.13 Sq.m	3ltr/sqm	3	-	3
Fire Fighting			1	-	1
DG/HVAC cooling	2645 (2*1010 +1*625)	0.9l/KVA/hr	10	--	10
<b>Total</b>			<b>71</b>	<b>21</b>	<b>50</b>

Category	Total Quantity (KLD)
Domestic water Req.	21
Flushing water Req.	36
Sewage generation (@90% of the fresh + 100% flushing water requirement)	55
<b>Capacity of STP</b>	<b>70</b>
Recovered water from STP (90% of Waste water)	50
1. Flushing	36
2. Landscaping	3
3. Fire Fighting	1
4. DG/HVAC cooling	10

### Solid Waste Requirement

S. No	Description	Occupancy/Area	kg/capita/day	Total Solid Waste Generation (kg/day)	Recyclable (kg/day)	Non Recyclable (kg/day)
1.	Staff	1008	0.25	252	202	50
2.	Visitors	692	0.15	104	83	21
3.	Landscape waste	0.203 acres	0.2 kg/acres	1	-	1

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4.	STP sludge	70KLD	--	4	-	4
<b>Total Waste Generated</b>				<b>361</b>	<b>285</b>	<b>76</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development

- Combination of local trees and shrubs are planned within the project site.
- Total green area provided at the site is Green Area (@ 823.13 % of plot area) which will enhance the beauty of the site and help combat air and noise pollution.
- The plant species will be selected on the basis of Guidelines for Developing Green Belts, CPCB March 2000.

### Solid Waste Management

#### During Construction Phase

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

#### During Operation Phase

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

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## Water Quality Management

### During Construction Phase

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

### During Operation Phase

- STP of capacity i.e. 70 KLD is proposed for treatment of wastewater.
- Treated waste water would be reused for Horticulture, DG/HVAC cooling, flushing, fire fighting.
- Use of water efficient plumbing fixtures to conserve water.
- Approx. 21 KLD of fresh water is required during operational phase of the project.

## Air Quality Management


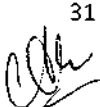



- Warehouse/stock yard will be provided for storage of construction material
- Covering of stored construction materials with tarpaulin covers which will be resold to authorized construction material handling agency for reuse.
- Covering of trucks carrying construction materials.
- Dust suppression by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

## Energy conservation

Solar Power generation will be atleast 10% of the total power requirement.

The SEAC considered the same and recommends for issuance of corrigendum EC with corrected details as stated above. Rest other terms & conditions mentioned in the previous EC letter no. EC/SEIAA/2022-23/2643/2022/283, dated 27.10.2022 shall remain the same.

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Consideration of Proposals

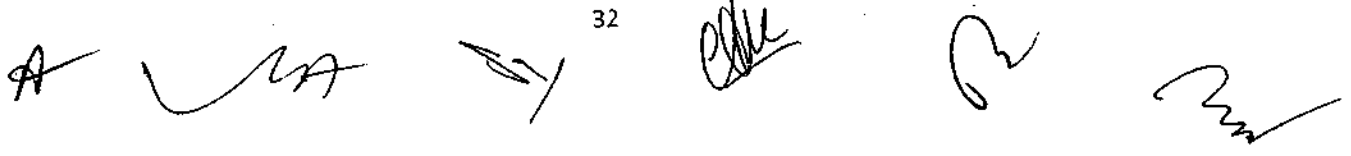
1. Amendment in EC for Change in Configuration of Non-Recovery Coke Ovens from 51 Ovens to 23 Ovens and installation of Stamp charging facility in place of Top charging with existing battery with no change in overall production capacity under the EC i.e. Hard Coke 78000 TPA of M/s Abhiyan Coal and Coke LLP, Village : Amjhore, P.O. : Baliapur, P.S. : Baliapur, Distt. : Dhanbad, Jharkhand

(Proposal No. : SIA/JH/IND/293537/2022)

Name of the consultant: Vardan Environet, Gurgaon

This is a existing project which has been taken for appraisal on 09.12.2022.

1. Abhiyan Coal and Coke LLP is an Existing Coke Oven Unit having an EC transferred in its name vide letter No. 100, Ranchi, dated 16.04.2022. from SEIAA, Jharkhand for 78000 TPA Hard coke and Coal Washery Plant 250 TPD located at Amjhore, P.O.: Baliapur, Dist.: Dhanbad, Jharkhand. The total plant area is of 1.78 hectares
2. Abhiyan Coal and Coke LLP had purchased the existing Hard Coke and Coal Washery Plant from M/s. OSD Coke Pvt. Ltd.in 2021.
3. M/s OSD Coke Private Limited has obtained Environment Clearance from State Level Environment Impact Assessment Authority for expansion of its existing plant for Hard Coke production from 128 TPD (38400 TPA) to 260 TPD (78000 TPA) through Non-Recovery type Beehive Coke Ovens and installation of 250 TPD (75000 TPA) Coal Washery vide letter no. EC/SEIAA/2013-14/121/2013/1551, dated: 01.09.2015. The Environment Clearance was transferred by SEIAA, Jharkhand in the name of M/s Abhiyan Coal and Coke LLP vide letter No. 100, Ranchi, dated 16.04.2022.
4. After obtaining EC in 2015, the company, M/s. OSD Coke Pvt. Ltd. had obtained CTE from Jharkhand State Pollution Control Board (JSPCB) vide Letter no.-PC/NOC/DHN/216/D/2575(N), dated: 29.09.2015 and CTO from time to time. The last CTO issued by JSPCB vide Letter no.-JSPCB/HO/RNC/CTO-9718665/2021/502, dated: 25.03.2021 is valid up to 31.03.2025.
5. The present proposal is for Amendment in the Environment Clearance for Change in Configuration of Non-Recovery Coke Ovens Battery from 51 Ovens to 23 Ovens and installation of Stamp Charging facility in place of Top Charging facility with the existing battery, with no change in overall production capacity under the EC i.e. Hard Coke 78,000 TPA. As per EC 51 Ovens are proposed. 42 ovens at present, will be dismantled and new 23 ovens (capacity of each Oven 22.604 Ton Coke Production) with stamp charging with pusher system and new down draft ovens will be installed in two blocks i.e. 10 Ovens in one block and 13 Ovens in other block. The amendment sought is for change in number of Ovens and for installation of Stamp Charging



facility (which is more environment friendly in comparison to Top Charging facility within the capacity of the hard coke production (78,000 TPA) under the Environmental Clearance.

6. No Coal Washery has yet been installed and the 250 TPD coal washery is planned for installation under the EC in future.
7. Abhiyan Coal and Coke LLP has made an online application for EC Amendment vide proposal no. IA/JH/IND/293537/2022 dated 02.11.2022. The proposed project activity is listed at S. No. 4(b)(i), Coke Oven Plants and 2(a) Coal Washeries, under Category 'B', as per the EIA Notification, 2006 and is being appraised by State Expert Appraisal Committee, Jharkhand.

**8. Environmental site settings :**

Sl. No.	Particulars	Details		Remarks
i	Total land	1.78 ha [Private: 1.78 ha; Govt: 0 ha; Agriculture: 0 ha and Grazing land: 0 ha.]		Land use: Industrial No change in land area after Proposed Amendment
ii	Khata no./Plot No.	Khata No.	Plot No.	--
		2	1788,3784	
		40	1789,1655,1803	
		48	1809,1799	
		49	1801	
		53	1800,1814	
		75	1806	
		94	1790,1791,1802	
		134	1795,1805,1807	
		189	1658,1665	
		238	1777	
		275	1787,1788,1984	
		276	1824	
		355	1815,1816	
		383	1985	
399	1812,1813,1820,1827,1835			
232	1869,1870,1871			
iii	Existence of habitation &	No existence of habitation & involvement of		--

Sl. No.	Particulars	Details			Remarks																																													
	involvement of R&R, if any.	R&R																																																
iv	Latitude and Longitude of the project site	<table border="1"> <thead> <tr> <th>Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr><td>1</td><td>23° 43' 44.585" N</td><td>86° 30' 4.080" E</td></tr> <tr><td>2</td><td>23° 43' 42.294" N</td><td>86° 30' 4.345" E</td></tr> <tr><td>3</td><td>23° 43' 42.558" N</td><td>86° 30' 3.716" E</td></tr> <tr><td>4</td><td>23° 43' 41.822" N</td><td>86° 30' 4.114" E</td></tr> <tr><td>5</td><td>23° 43' 40.477" N</td><td>86° 30' 3.872" E</td></tr> <tr><td>6</td><td>23° 43' 40.208" N</td><td>86° 30' 2.949" E</td></tr> <tr><td>7</td><td>23° 43' 40.524" N</td><td>86° 29' 59.594" E</td></tr> <tr><td>8</td><td>23° 43' 40.426" N</td><td>86° 29' 58.478" E</td></tr> <tr><td>9</td><td>23° 43' 41.477" N</td><td>86° 29' 58.716" E</td></tr> <tr><td>10</td><td>23° 43' 44.808" N</td><td>86° 29' 58.342" E</td></tr> <tr><td>11</td><td>23° 43' 44.769" N</td><td>86° 30' 0.380" E</td></tr> <tr><td>12</td><td>23° 43' 43.949" N</td><td>86° 30' 1.296" E</td></tr> <tr><td>13</td><td>23° 43' 43.008" N</td><td>86° 30' 2.643" E</td></tr> <tr><td>14</td><td>23° 43' 44.764" N</td><td>86° 30' 3.193" E</td></tr> </tbody> </table>	Point	Latitude	Longitude	1	23° 43' 44.585" N	86° 30' 4.080" E	2	23° 43' 42.294" N	86° 30' 4.345" E	3	23° 43' 42.558" N	86° 30' 3.716" E	4	23° 43' 41.822" N	86° 30' 4.114" E	5	23° 43' 40.477" N	86° 30' 3.872" E	6	23° 43' 40.208" N	86° 30' 2.949" E	7	23° 43' 40.524" N	86° 29' 59.594" E	8	23° 43' 40.426" N	86° 29' 58.478" E	9	23° 43' 41.477" N	86° 29' 58.716" E	10	23° 43' 44.808" N	86° 29' 58.342" E	11	23° 43' 44.769" N	86° 30' 0.380" E	12	23° 43' 43.949" N	86° 30' 1.296" E	13	23° 43' 43.008" N	86° 30' 2.643" E	14	23° 43' 44.764" N	86° 30' 3.193" E			--
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v	Elevation of the project site	193 meters amsl			AMSL																																													
vi	Involvement of Forest land if any.	No involvement of Forest Land			--																																													
vii	Water body exists within the project site as well as study area	<p><b>Project site:</b> No water body within the plant site area</p> <p><b>Study area:</b> Ghi Nadi is at 2.1 km in NE direction. Damodar River is at 9.5 km in South Direction.</p>			Distance and direction are w.r.t the project site																																													
viii	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/tiger reserve/elephant reserve etc. if any within the study	<p><b>Study area:</b> No ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve within the plant site area.</p>			Distance and direction are w.r.t the project site																																													

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Sl. No.	Particulars	Details	Remarks
	area		

The Production data after Amendment sought is given below :

S. No.	Units	Production as per EC dated 01.09.2015	Production as per CTO dated 25.03.2021	Final Production after Amendment	Remarks
1	Non-Recovery Coke Ovens	51 Ovens 78,000 TPA Hard Coke	42 Ovens 42,300 TPA Hard Coke	23 Ovens 78,000 TPA Hard Coke	Stamp charging with pusher System -and new down draft ovens will be installed in the proposed amendment.
2	Coal Washery	250 TPD (75000 TPA)	---	250 TPD (75000 TPA)	Washery is not yet installed and is planned for future – no change proposed

9. The raw material shall change after the proposed amendment and the details are provided below:

Raw Material	Maximum Quantity as per EC dated 01.09.2015	Maximum Quantity after proposed change in Configuration in TPA	Source	Transportation details	Remark
Low ash Coal (Coke Oven)	102,000	102,000	BCCL, CCL, NEC, ECL & Local Market	30-150 km by road	No change in coal input as per EC
Coal (Coal Washery)	75,000	75,000	BCCL, CCL, NEC, ECL & Local Market	30-150 km by road	No change in coal input as per EC (Washery not yet installed)

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10. The Estimated make-up water requirement as per the EC is 73 KLD. Water requirement after the proposed change in configuration will be 73 KLD only, thus no change in water requirement is envisaged.
11. The power required for the plant at present is 250 MVA and the power required after the proposed amendment will be 500 MVA. The Power will be sourced from JBVNL ( Jharkhand Bijli Vitran Nigam Limited)
12. The Total cost estimated for the plant in EC dated 01.09.2015 was Rs. 2.59 Crores. and the project cost after proposed amendment is envisaged as Rs. 14.9 Crores.
13. The employment generation after the proposed amendment will remain same as existing i.e. 50.
14. The proposed change in technology has following beneficial features:
- By decreasing the number of ovens, the overall emissions from the hard coke unit are reduced due to less material handling steps.
  - Fugitive emissions like – leaking doors), and will be reduced due to decrease in number of doors and offsets.
  - The emissions from the stack will reduce by use of latest technology down-draft system with circulating flue for maximum combustion of VM and reduction in unburnt carbon.
  - The fugitive emissions from coal handling and charging will reduced by use of wet cake stamp charging system, as compared to earlier proposed top charging system.
  - The new pusher type coke extraction & charging system from the ovens also results in reduced fugitive emissions due to complete extraction in less duration.
  - During the carbonization process volatile matters are evolved which is burnt completely inside the well-designed coke oven.
  - The quality of product is also improved due to proper carbonization resulting from combustion of all the volatile matters
15. AAQ Model was run to predict the change in impact due to installation of 23 Coke Ovens in place of 51 Coke Ovens and compare the values, under controlled conditions. There is a decrease in GLC at all locations for all pollutants. Thus, the change in configuration of the coke ovens with Down draft ovens with Stamp Charging and Pusher type system – a more eco-friendly technology, will have a positive impact by reducing the air emissions during the operation phase.
16. Pollution Load as compared to previous EC vis-à-vis proposed amendment for the Hard Coke unit -78000 TPA is presented below:

Specification	As per previous EC	After Amendment	proposed	Remarks

The bottom of the page contains several handwritten signatures and marks. On the left, there is a signature that appears to be 'A' followed by some scribbles. In the center, there is a signature that looks like 'SA'. To the right of that, there is a signature that looks like 'R'. Further right, there is a signature that looks like 'M'. On the far right, there is a signature that looks like 'R' with a long horizontal line extending to the right.

Requirements/consumption:			
Technology	Non-Recovery type Top charging	Non- Recovery type Stamp charging with Pusher system New down draft recirculating flue tunnel To chimney	Improved technology with: Less Stack emission & Less fugitive emissions
Production capacity	Hard coke – 78000 TPA	Hard coke – 78000 TPA	No Change
Raw material requirement	Coking Coal – 102000 TPA	Coking Coal – 102000 TPA	No Change
Water requirement	Coke Ovens – 46 KLD	Coke Ovens – 46 KLD	No Change
Manpower	50	50	No change
Waste Generation:			
Solid Waste	Coke dust slurry from quenching pit (settling) – 1200 TPA	Coke dust slurry from quenching pit (settling) – 1200 TPA	No Change
Hazardous Waste	Used oil - 100 lit/yr	Used oil - 100 lit/yr	No change
Wastewater	No discharge. Industrial water kept in closed circuit. Blowdown will be used for dust suppression / horticulture. Domestic wastewater routed to septic-tank & soak pit.	No discharge. Industrial water kept in closed circuit. Blowdown will be used for dust suppression / horticulture. Domestic wastewater routed to septic-tank & soak pit.	No change
Emissions:			
Stack Height	45.0 m	45.0 m	No change.
Emission Rate (from Stack)	PM – 4.1503 g/s	PM – 1.4728 g/s	But decrease in emission due to

	SOx - 1.780 g/s NOx - 0.0505 g/s	SOx - 0.9611 g/s NOx - 0.0342 g/s	Down-draft Tunnel system, moisture in the stamp charged coal and complete combustion of VM.
There is no change in proposal of the Coal washery (250 TPD) as granted in the previous EC.			

17. There is no Court case/show cause/direction or violation under EIA, 2006 related to the project under consideration.
18. Name of the EIA consultant: Vardan EnviroNet [S.No. 37 in List of ACOs with their Certificate / Extension Letter no., NABET/EIA/2023/SA 0158 valid upto 5<sup>th</sup> May 2023].

**STATUTORY CLEARANCES :**

1	CO	:	The CO, Baliapur (Dhanbad) vide letter no. 770, dated 06.10.2021 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
2	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag vide letter no. 2121, dated 02.12.2021 certified that the said project is outside of Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
3	DFO Forest Distance	:	DFO, Dhanbad Forest Division vide letter no. 2204, dated 02.12.2021 certified that the distance of reserved / protected forest is 800 m from proposed project site.
45	Previous EC	:	Previous EC issued by SEIAA vide letter no. : EC/SEIAA/2013-14/121/2013/1542 dated 01.09.2015.
5	Transfer of EC	:	Transfer of EC from the project "M/s OSD Coke Pvt. Ltd. (Amjhore Unit) to M/s Abhiyan Coal & Coke LLP, Dhanbad" vide letter no. : 100, dated 16.04.2022
6	Consent to Operate (CTO)	:	i. CTO granted by JSPCB vide Ref. no. : B-2126, dated 20.03.2013. ii. CTO granted by JSPCB vide Memo no. : D-873 (C), dated 30.04.2015. iii. CTO granted by JSPCB vide Ref. no. : JSPCB/HO/RNC/CTO-

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		7516755/2020/1093, dated 08.07.2020.
		iv. CTO granted by JSPCB vide Ref. no. : JSPCB/HO/RNC/CTO-9718665/2021/502, dated 25.03.2021.
		v. CTO granted by JSPCB vide Ref. no. : JSPCB/HO/RNC/CTO-11382306/2022/657, dated 21.05.2022.

Based on the presentation made and information provided, the Committee decided that the proposal for Change in Configuration of Non-Recovery Coke Ovens from 51 Ovens to 23 Ovens and installation of Stamp charging facility in place of Top charging with existing battery with no change in overall production capacity under the EC i.e. Hard Coke 78000 TPA of M/s Abhiyan Coal and Coke LLP, Village : Amjhore, P.O. : Baliapur, P.S. : Baliapur, Distt. : Dhanbad, Jharkhand is recommended for amnendment of EC. The various conditions for grant of EC is enclosed as Annexure – II.

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- Enhancing the production of TMT Bars / Rods from 16,500 TPA to 64,680 TPA by modernization of existing Re-Rolling Mill from 5 TPH to 10 TPH capacity and by enhancing the production of M.S. Billets from 12,210 TPA to 79,200 TPA by installing additional 2x10 T induction furnace along with existing 1x4 T induction furnace and existing 1x2 Strand, 4/7 Radius CCM of M/s Lall Steels Pvt. Ltd., Village : Mahtodih, P.S. : Mahtodih, P.O. : Udnabad, Distt. : Giridih, Jharkhand  
(Proposal No. : SIA/JH/IND/400932/2022)

**Name of the consultant: Vardan Environet, Gurgaon**

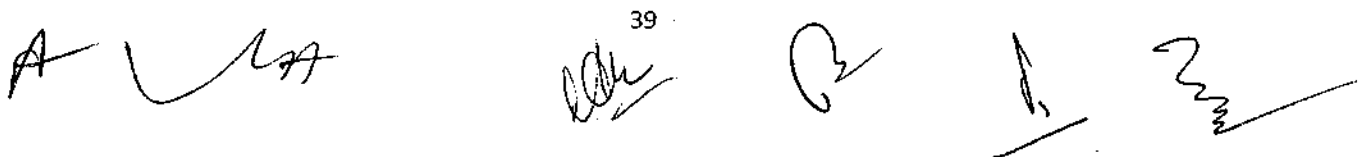
This is a new project which has been taken for appraisal on 09.12.2022.

The proposal was considered by the committee to determine the "Terms of Reference (TOR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendments thereafter. For this purpose the Project Proponent has submitted the prescribed Form - I & PFR the proposed project falls under item 3 (a) Metallurgical Industries (Ferrous & Non-Ferrous) as per EIA Notification, 2006.

M/s Lall Steels Pvt. Ltd. is an existing steel plant at Village – Mathodih, P.S – Mathodih, P.O – Mathodih, District – Giridih, State – Jharkhand in total area of 7.57Ha.

The plant was initially installed by M/s Naiyadih Hi-Tech Pvt. Ltd. after obtaining Consent to Establish (CTE) for production of 20 TPD M.S Ingot from Bihar State Pollution Control Board (BSPCB) vide Ref no. T-4500 dt. 23.08.1996. Further the production capacity of the plant was

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increased to 37 TPD of MS Ingots and installed 50TPD Re-rolling Mill in the year 1999 after obtaining CTE from BSPCB.

The Plant was taken over by M/s Lall Steels Pvt. Ltd. in the year 2011 and continued with the same production of 37TPD MS Ingots and 50TPD MS Bars after obtaining CTO from Jharkhand State Pollution Control Board (JSPCB) vide Ref. No. 1911 dt. 11.06.2014. The latest CTO is issued vide Ref. No. JSPCB/HO/RNC/CTO-12047631/2022/220, dt: 27.02.2022, valid up to 31.12.2023.

Company now proposes for enhancing the production of TMT Bars/ Rods from 16,500TPA to 64,680TPA by modernizing of Existing Re-rolling Mill from 5TPH to 10TPH capacity and by enhancing the production of M.S. Billets form 12,210TPA to 79,200TPA by installing additional 2x10T Induction Furnace along with existing 1x4T Induction Furnace and existing 1x2 Strand, 4/7 Radius CCM at Village – Mahtodih, P.S – Mahtodih, P.O. Udnabad and District – Giridih, Jharkhand. Proposed Expansion shall be done within the Existing Plant area of 7.57Ha (18.7208Acres). No additional land is required. No forest land is involved. Out of the total area 2.82Ha (37.26%) will be developed as greenbelt.

Latitude	24° 08' 53.64"N and 24° 08' 42.65"N	
Longitude	86° 20' 34.13"E and 86° 20' 22.69"E	
<b>Points</b>	<b>Latitude</b>	<b>Longitude</b>
A	24° 8'53.488"N	86°20'34.036"E
B	24° 8'51.672"N	86°20'32.573"E
C	24° 8'51.040"N	86°20'33.748"E
D	24° 8'48.387"N	86°20'32.053"E
E	24° 8'49.007"N	86°20'30.262"E
F	24° 8'51.010"N	86°20'31.442"E
G	24° 8'52.165"N	86°20'28.519"E
H	24° 8'50.310"N	86°20'27.719"E
I	24° 8'48.056"N	86°20'27.066"E
J	24° 8'46.831"N	86°20'26.564"E
K	24° 8'47.427"N	86°20'24.252"E
L	24° 8'42.618"N	86°20'22.545"E
M	24° 8'40.624"N	86°20'30.584"E
N	24° 8'42.898"N	86°20'31.372"E
O	24° 8'42.878"N	86°20'34.616"E
P	24° 8'45.512"N	86°20'34.921"E
Q	24° 8'46.844"N	86°20'33.991"E

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R	24° 8'50.882"N	86°20'34.040"E
S	24° 8'52.676"N	86°20'35.188"E

**LAND DETAILS :**

Khata No.	Plot No.	Khata No.	Plot No.
17	162, 189, 190, 192, 197	10	205, 179
19	164, 165	28	206
22	176, 195	30	208, 199, 209
20	177, 184	18	204, 188
12	158, 172, 174, 175, 185, 186, 187, 207, 203, 196	31	202
		11	193, 194
		35	183
33	157, 171	25	180, 182

Estimated cost for the proposed expansion is Rs. 12.44 Crs and the Total Project cost is estimated to be 21.7035 Crs. Including the cost of the existing plant at Rs. 9.2635 Crs. Employment Generation after the proposed project will be 90 direct employment and approximately 50-60 people will be employed during the construction phase and will be recruited from the local villages surrounding the project site.

Raw material for the plant would be procured from local and other state markets depending upon the quality. The transportation of raw material and the final products will be done through SH-13 that is adjacent to the project site. The capacity of different existing and proposed units is as follows :

Sl. No	Plant Facilities	Existing Configuration	Proposed New Configuration	Final Production Capacity (TPA)
1.	Induction Furnace	12,210TPA (1x4T)	66990TPA (2x10T- New Addition)	MS Billets 79,200TPA (1x4T+2x10T IF & 1x2 Strand, 4/7 Radius CCM)
	Continuous Casting Machine	1x2 Strand, 4/7 Radius CCM	--	
2	Rolling Mill (TMT Bars/Rods)	16,500TPA (1x5TPH) Will be modernized	64,680 TPA* (Modernization of existing 1x5TPH capacity Rolling Mill To 1x10TPH	Roll Products (TMT Bars/ Rods) 64,680 TPA

*A WA*

*BAH*

*Q*

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Sl. No	Plant Facilities	Existing Configuration	Proposed New Configuration	Final Production Capacity (TPA)
			capacity)	
3	Reheating Furnace (Coal Fired)	50TPD	--	50TPD (Will be operated only in the case of Emergency)

The rolling capacity will be increases by installing high speed rolls and increasing number of working hours.

Total requirement of power required after the proposed expansion will be 12.2 MVA. Power requirement will be sourced form Damodar Valley Corporation (DVC). DG Sets existing 1x500kVA and an additional of 2x180kVA DG set for meeting emergency requirement of the plant.

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

Raw Materials	Existing Requirement (TPA)	Total Requirement After Expansion (TPA)	Source
<b>MS Billets Production</b>	<b>12210TPA</b>	<b>79200TPA</b>	
Sponge Iron	9768	63360 TPA	Local Plants in Giridih. Through Road
Pig Iron	3663	23760 TPA	
Scrap	1831	11880 TPA	In-house & nearby Plants. Through Road
Ferro Alloys (SiMn/FeSi)	24	158 TPA	Local Plants in Giridih. Through Road
<b>Total Raw Materials</b>	<b>15286</b>	<b>99158 TPA</b>	
<b>Rolling Mill – TMT Bars/Rods</b>	<b>16500TPA</b>	<b>64680 TPA</b>	
Hot Billets/M.S. Billets	16830	66,000 TPA	Billets 66,000TPA will be used for in-house rolling mill & Balance 13200TPA sell to other plants
<b>Reheating Furnace</b>	<b>50TPD</b>	--	
Coal	1050	--	Dhanbad & Giridih Through Road.

The total water requirement after the proposed expansion will be 113KLD. Water requirement will be met from Groundwater through borewells. Application vide Ref. No. 21-4/934/JH/IND/2022 has been submitted to the Central Ground Water Authority (CGWA) to obtain NOC for 113KLD of water withdrawal through bore well. Zero Liquid Discharge (ZLD) shall be maintained.

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

**STATUTORY CLEARANCES :**

1	DFO Forest Distance	DFO, Giridih East Forest division vide letter no. 2206, dated 11.11.2020 & letter no. 1320, dated 09.06.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
2	DFO wildlife	: DFO, Wildlife Hazarinag vide letter no. 1159, dated 16.07.2021 certified that the said project is outside of Eco Sensitive Zone of Parasnath and Topchanchi Wildlife Sanctuary.
3	CO certificate	: The CO, Giridih Sadar vide letter no. 284, dated 10.03.2022 & letter no. 445, dated 13.04.2022 have mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyar & Register II.
4	Consent to Establish (CTE) & Consent to Operate (CTO)	: i. CTE issued by JSPCB vide Ref. no. JSPCB/HO/RNC/CTE-5535934/2019/545, dated 24.09.2019. ii. CTO issued by JSPCB vide Ref. no. B-1911, dated 11.06.2014. iii. CTO issued by JSPCB vide Ref. no. JSPCB/HO/RNC/CTO-6943167/2020/437, dated 19.02.2020 iv. CTO issued by JSPCB vide Ref. no. JSPCB/HO/RNC/CTO-12047631/2022/220, dated 27.02.2022.

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 07, 08, 09, 10 & 11.12.2022, the Committee recommends for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure III.

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3. Expansion of existing 24,600 TPA Billets unit by addition of 2x12T Induction Furnaces with CCM and replacement of existing 1x8T Induction Furnace by 1x12T Induction Furnace with CCM along with addition of 20 TPH Rolling Mill for final production capacity of Billets 1,18,800 TPA and Rolled Products 1,17,600 TPA of M/s JSV Enterprises at Plot no. 48, Barhi Industrial Area, Village : Konra, Tehsil : Barhi, Dist. : Hazaribagh, Jharkhand.

(Proposal No. : SIA/JH/IND1/407476/ 2022).

Name of the consultant: Vardan Environet, Gurgaon

This is a expansion project which has been taken for appraisal on 09.12.2022.

M/s. JSV Enterprises has made an online application vide proposal no. SIA/JH/IND1/407476/2022 dated 24.11.2022 along with copy of EIA/EMP report, Form – 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at 3(a) Metallurgical Industries under Category “B” of the schedule of EIA Notification, 2006 and appraised at State Level.

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 92<sup>nd</sup> meeting held on 20-23.10.2021 and SEIAA, Jharkhand has approved the ToRs in 93<sup>rd</sup> meeting held on 26<sup>th</sup>, 27<sup>th</sup> & 28<sup>th</sup> October, 2021. TOR for the project was issued by SEIAA, Jharkhand vide letter no. 200, date 30.10.2021. The final EIA / EMP submitted by PP to SEIAA on 01.12.2022 and which was forwarded to SEAC on 08.12.2022.

M/s JSV Enterprises is located at Plot No. 48, Barhi Industrial Area, Barhi, District- Hazaribagh, State- Jharkhand. The project is for expansion of Existing 24600 TPA Billets Unit by addition of 2x12 T Induction Furnaces with CCM (2x2 Strand, Rad. 4/7) and replacement of existing 1x8 T furnace by 1x12 T Induction Furnace along with addition of 20 TPH Rolling Mill For Final Production Capacity of Billets 118800 TPA, Rolled Products (Direct Hot Rolling) 117600 TPA & Slag Crusher 30000 TPA.

**Environmental Site Settings:**

S. No.	Particulars	Details	Remarks
1	Total land	4.55ha [Industrial: 4.55ha]	Land Use: Industrial
2	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014  Existence of habitation & involvement of R&R, if any.	No additional land required for the project. Land has already been acquired and under the possession of the company. Land documents submitted.  R&R is not applicable <b>Existence of Habitation</b> Project Site – Nil	

S. No.	Particulars	Details	Remarks																		
		Study Area <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>DVC Colony</td> <td>0.20 km</td> <td>West</td> </tr> </tbody> </table>	Habitation	Distance	Direction	DVC Colony	0.20 km	West													
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4	Latitude and Longitude of all corners of the project site.	<table border="1"> <thead> <tr> <th>Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>24°18'2.22" N</td> <td>85°26'0.15" E</td> </tr> <tr> <td>B</td> <td>24°18'7.29" N</td> <td>85°26'1.21" E</td> </tr> <tr> <td>C</td> <td>24°18'5.90" N</td> <td>85°26'8.66" E</td> </tr> <tr> <td>D</td> <td>24°17'58.77" N</td> <td>85°26'11.10" E</td> </tr> </tbody> </table>	Point	Latitude	Longitude	A	24°18'2.22" N	85°26'0.15" E	B	24°18'7.29" N	85°26'1.21" E	C	24°18'5.90" N	85°26'8.66" E	D	24°17'58.77" N	85°26'11.10" E				
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5	Elevation of the project site	394 m 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	<p><b>Project Site:</b> No water bodies within the project site</p> <p><b>Study area</b></p> <table border="1"> <thead> <tr> <th>Water Body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Barhi River</td> <td>1.25km</td> <td>SW</td> </tr> <tr> <td>Tilaiya Dam Reservoir</td> <td>2.60 km</td> <td>North</td> </tr> <tr> <td>Barhi Dam</td> <td>3.6 km</td> <td>South</td> </tr> <tr> <td>Nonai Nadi</td> <td>5.83km</td> <td>West</td> </tr> <tr> <td>Barakar River</td> <td>6.14km</td> <td>West</td> </tr> </tbody> </table>	Water Body	Distance	Direction	Barhi River	1.25km	SW	Tilaiya Dam Reservoir	2.60 km	North	Barhi Dam	3.6 km	South	Nonai Nadi	5.83km	West	Barakar River	6.14km	West	
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8	Existence of ESZ/ ESA/	The ESZ of Hazaribagh Wildlife Sanctuary is																			

S. No.	Particulars	Details	Remarks
	national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	at a distance of 8.6 km from the project site. However the boundary of Hazaribagh WLS is at a distance of 12.5 km from the project site	

Company started with 24,600TPA MS Billets production by installing 1x8T Induction Furnace along with CCM (2 Strand, Rad 4/7) and 4,800TPA capacity slag crusher unit after obtaining Consent to Establish (CTE) from Jharkhand State Pollution Control Board (JSPCB) vide letter no. JSPCB/HO/RNC/CTE-3780260/2019/334, dated 29.05.2019 and Consent to Operate (CTO) for same vide letter No. JSPCB/HO/RNC/CTO-7180571/2020/1323 dated 18.08.2020. Another CTO is issued by JSPCB vide Ref No. JSPCB/HO/RNC/CTO-9576987/2021/1340 dated 01.11.2021 to the company for production of 24,600 TPA MS Billets and is valid till 31.12.2022.

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

Sl. No	Plant Facilities	Existing Installed Units and Capacity		Proposed Units and Capacity		Total after Expansion	
		Unit	Capacity	Unit	Capacity	Unit	Capacity
1.	Induction Furnace	(1x8T)	24,600 TPA	Replacement of existing 1x8T by 1x12T and additional 2x12T)	94,200 TPA	(3x12T)	MS Billets
2.	Continuous Casting Machine	1x2 strand, Rad. - 4/7	MS Billets	1x2 strand, Rad. - 4/7	MS Billets	2x2 strand, Rad. - 4/7	118,800 TPA
3.	Rolling Mill	--	--	(1x20TPH)	117,600 TPA Long Rolled Products	(1x20TPH)	117,600 TPA Long Rolled Products
4.	Slag Crusher	--	4,800 TPA	Enhancement of Capacity by replacement of existing facility	30,000 TPA	--	30,000 TPA

*[Handwritten signatures and marks]*

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

Sl. No.	Item	Existing Requirement in TPA	Proposed Requirement in TPA	Total Requirement in TPA	Source	Distance & Mode of Transport
<b>STEEL MELTING SHOP –(MS Billets 118,800 TPA)</b>						
1.	Sponge Iron	19,680	75,360	95040	Local Market in Hazaribagh, Ramgarh, Giridih etc	40 to 120 km by Road
2.	Pig Iron	7,380	28,260	35640		
3.	Scrap	3,690	14,130	17820		
4.	Ferro-alloys	50	190	240		
<b>Total</b>		<b>30,800</b>	<b>1,17,940</b>	<b>148,740</b>		
<b>ROLLING MILL – (Long Rolled Product 117,600TPA)</b>						
1.	MS Billets	--	118,800	118,800	In house	--

The total requirement of makeup water for industrial and domestic purposes after the proposed expansion will be 204 KLD. Application for permission for the Ground water has been submitted to the CGWA. The application number for the CGWA NOC is 21-4/873/JH/IND/2022.

Total requirement of power for the after proposed expansion will be 16.0 MVA. Existing requirement of power for the operation of existing units is 6.0MVA and requirement is met through DVC. Permission for the additional power requirement shall be obtained from DVC. One DG set of 62.5 kVA will be installed along with the existing DG set of 62.5 kVA.

#### Baseline Environmental Studies:

Parameters	Description	Permissible Level
AAQ parameters at 8 Locations (min and max)	<b>In the month of March to May 2021</b> PM2.5 20.7 µg/m <sup>3</sup> and 35.1 µg/m <sup>3</sup> PM10 40.8 µg/m <sup>3</sup> to 69.2 µg/m <sup>3</sup> SO2 17.6 µg/m <sup>3</sup> to 29.8 µg/m <sup>3</sup> NO2 29.3 µg/m <sup>3</sup> to 49.6 µg/m <sup>3</sup> CO 1.5 mg/m <sup>3</sup> to 2.5 mg/m <sup>3</sup>	60 µg/ m <sup>3</sup> 100 µg/ m <sup>3</sup> 80 µg/ m <sup>3</sup> 80 µg/ m <sup>3</sup> 02 mg/m <sup>3</sup>
	<b>In the month Of November 2021</b> PM2.5 47.0 µg/m <sup>3</sup> and 64.4 µg/m <sup>3</sup> PM10 51.2 µg/m <sup>3</sup> to 70.2 µg/m <sup>3</sup> SO2 22.2 µg/m <sup>3</sup> to 30.4 µg/m <sup>3</sup> NO2 35.9 µg/m <sup>3</sup> to 49.2 µg/m <sup>3</sup> CO 2.3 mg/m <sup>3</sup> to 3.1 mg/m <sup>3</sup>	

*(Handwritten signatures and initials)*

Parameters	Description	Permissible Level
Ground Water Quality	<p><b>In the month of March to May 2021</b>  pH varies from to 7.41 to 7.65  Total Hardness varies from 214 to 258 mg/L.  Total Dissolved Solids varies from 325 to 434 mg/L.</p> <p><b>In the month Of November 2021</b>  pH varies from to 7.44 to 7.68  Total Hardness varies from 222.18 to 262.43 mg/L.  Total Dissolved Solids varies from 345 to 462 mg/L.</p>	<p>6.5-8.5  200-600  mg/L  500-2000  mg/L</p>
Surface Water Quality	<p><b>In the month of March to May 2021</b>  pH varies from to 7.58 to 7.89  Dissolved Oxygen varies from 5.9 to 6.6 mg/L.  BOD varies from 11.0 to 16.00 mg/L.</p> <p><b>In the month Of November 2021</b>  pH varies from to 7.61 to 7.81  Dissolved Oxygen varies from 5.8 to 6.4 mg/L.  BOD varies from 10.0 to 14.00 mg/L.</p>	IS:2296 Class C Norms
Soil Quality	<p><b>In the month of March to May 2021</b>  pH 7.45 to 7.86  Potassium K 124.0 to 193.0 kg/ha  Available nitrogen N 158.16 to 236.11 (Kg/hect)  Organic matter 0.38% to 0.61%</p> <p><b>In the month Of November 2021</b>  pH 7.58 to 7.81  Potassium K 123.0 to 174.0 kg/ha  Available nitrogen N 158.16 to 235.11 (Kg/hect)  Organic matter 0.37% to 0.60 %</p>	---
Noise Level	<p><b>In the month of March to May 2021</b>  Day Time (6:00 a.m. to 10:00 p.m.)  47.45 Leq dB(A) to 67.82 Leq dB(A)  Night Time (10:00 p.m. to 6:00 a.m.)  39.45 Leq dB(A) and 56.24 Leq dB(A)</p> <p><b>In the month Of November 2021</b>  Day Time (6:00 a.m. to 10:00 p.m.)  49.45 Leq dB(A) to 68.52 Leq dB(A)  Night Time (10:00 p.m. to 6:00 a.m.)  40.1 Leq dB(A) and 58.24 Leq dB(A)</p>	<p>75 Leq dB (A)  70 Leq dB (A)</p>

Parameters	Description	Permissible Level															
Traffic assessment study findings	<ul style="list-style-type: none"> <li>The traffic study was carried at two locations NH-2 (Delhi Kolkata Highway) at 50m road distance in East and NH-31 (Ranchi Patna Road) at 2km road distance in West</li> <li>Transportation of Raw material, Fuel and Finished product will be done by Road</li> <li>Existing PCU is 4726PCU/Day on NH-31 and 4331 PCU/day on NH-2 and existing level of service (LOS) is:</li> </ul>																
	<table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/day)</th> <th>C (Capacity in PCU/day)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH-31</td> <td>4726</td> <td>15000</td> <td>0.32</td> <td>B</td> </tr> <tr> <td>NH-2</td> <td>4331</td> <td>15000</td> <td>0.29</td> <td>B</td> </tr> </tbody> </table>		Road	V (Volume in PCU/day)	C (Capacity in PCU/day)	Existing V/C Ratio	LOS	NH-31	4726	15000	0.32	B	NH-2	4331	15000	0.29	B
	Road		V (Volume in PCU/day)	C (Capacity in PCU/day)	Existing V/C Ratio	LOS											
	NH-31		4726	15000	0.32	B											
	NH-2		4331	15000	0.29	B											
<ul style="list-style-type: none"> <li>PCU load after proposed project will be 4774 PCU/Day (Existing 4726 + 48) for NH-31 and 4427 PCU/day (Existing 4331 + Addl. 96) for NH-2 and level of service (LOS) will be;</li> </ul>	<table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/day)</th> <th>C (Capacity in PCU/day)</th> <th>V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH-31</td> <td>4,774</td> <td>15,000</td> <td>0.32</td> <td>B</td> </tr> <tr> <td>NH-2</td> <td>4,427</td> <td>15,000</td> <td>0.30</td> <td>B</td> </tr> </tbody> </table>	Road	V (Volume in PCU/day)	C (Capacity in PCU/day)	V/C Ratio	LOS	NH-31	4,774	15,000	0.32	B	NH-2	4,427	15,000	0.30	B	
Road		V (Volume in PCU/day)	C (Capacity in PCU/day)	V/C Ratio	LOS												
NH-31		4,774	15,000	0.32	B												
NH-2	4,427	15,000	0.30	B													
<p>Conclusion: Level of Service will be "B" i.e. Very Good for NH-31 and NH-2 including additional traffic due to proposed project.            Note: Capacity as per IRC 64:1990 Guideline for capacity for roads in Rural Areas.</p>																	
Flora and fauna	Schedule – I species such as Indian Pangolin, Sloth Bear, and Indian Vulture are reported in study area. Wildlife conservation plan has been prepared and submitted along with.																

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

Units	Solid Wastes	Qty. In TPA	Disposal Practice
Induction Furnace	Slag	29,000	After metal extraction (approx. 12% of slag), it will be supplied to outside parties for construction filling.
CCM	Scales & End cuts	810	Will be charged back as scrap in the induction furnace for In-House Reuse.

*A* *AA* *49* *CB* *↓* *mm*

Units	Solid Wastes	Qty. In TPA	Disposal Practice
Rolling Mill	Mill Scale & cuttings	1,200	Will be charged back as scrap in the induction furnace for In-House Reuse.
Bag Filter Dust from process	Dust from process	130	Supplied to outside parties for construction filling

### Public Consultation

Details of advertisement given	"Hindustan Times" on 14.06.2022, "Dainik Bhaskar" on 15.06.2022, "Prabhat Khabar" on 15.06.2022 and "Hindustan" on 15.06.2022
Date of public consultation	15.07.2022
Venue	Anganwadi Centre, Turi Tola Konra, Hazaribagh, Jharkhand
Presiding Officer	Smt. Poonam Kujur, SDM, Barhi, Jharkhand
Major issues raised	Employment to be given to local people in the proposed expansion, Development shall be done in the local area and to improve the condition of existing Road and Water Facilities in the local area.

Action plan as per MoEF&CC O.M. dated 30/09/2020

S. No.	Issues Raised and Action Plan		Target of Implementation of Action Plan (Timeline) with year wise expenditure		Total Expenditure Rs.
	Issue Raised In PH	Action Plan	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	
1	Development of the Area.	Installation of bore well with hand pumps  No. of Villages: 5 village around the project site  No. of Borewells and Hand Pumps: 4 in each village  Cost: Rs. 28500 per	Rs. 3.42 Lakhs ( For 3 Villages, Rs. 28500 x 4x3)	Rs. 2.28 Lakhs ( For 2 Villages, Rs. 28500 x 4x2)	Rs. 5.70 Lakhs

*[Handwritten signatures and marks]*

S. No.	Issues Raised and Action Plan		Target of Implementation of Action Plan (Timeline) with year wise expenditure		Total Expenditure Rs.
	Issue Raised In PH	Action Plan	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	
		set of bore well and hand pumps			
2.	Improvement in the conditions of existing Road and water facilities	Renovation of 0.65Ha Village Pond near Bahri for making it useful for domestic and for rainwater harvesting	Rs. 3.45 Lakhs (Renovation of Pond)	--	Rs.3.45 Lakhs
		Maintenance of Existing 2km Road connecting Turi Tola Village to MDR	--	Rs. 6.2 Lakhs (Cost of maintenance is 1km @ Rs. 3,10,000)	Rs.6.2 Lakhs
<b>Total (Rs.)</b>			<b>Rs. 6.87 Lakhs</b>	<b>Rs. 8.48 Lakhs</b>	<b>Rs. 15.35 Lakhs</b>

Existing Capital cost of project was Rs. 17.55 Crores. The capital cost of the proposed project is Rs. 14.90 Crores and the capital cost for environmental protection measures is proposed as Rs. 1.22468 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 0.2445 Crores. The employment generation from the proposed expansion is 160. The details of cost for environmental protection measures are as follows :

Sl. No.	Environmental Protection Measures	Proposed Rs. in Lakhs	
		Capital Cost	Recurring Cost
1	Air Pollution Control & Noise Management	45.0	4.5
2	Water Pollution Control Measures	19.0	3.0
3	Storage and Solid Waste Management	7.0	1.0
4.	Environment Monitoring Program	12.0	6.95
5.	Occupational Health & Safety	11.0	6.5

*[Handwritten signatures and marks]*

Sl. No.	Environmental Protection Measures	Proposed Rs. in Lakhs	
		Capital Cost	Recurring Cost
6.	Greenbelt Development	28.468	2.5
7.	Addressal of Public Consultation Concern	15.35	-
<b>Total</b>		<b>137.818</b>	<b>24.45</b>

The greenbelt development needs to be carried out in 33% of total plant area i.e. 1.50Ha (3.71 Acres). As per the ToR condition, company shall be developing greenbelt under MIYAWAKI method of afforestation on an area of 1 Acre of land out of 3.71 Acres marked for 33% green cover in the plant premises. For the Greenbelt development on the remaining area of 1.09 Ha plantation shall be done as per CPCB guidelines, maintain the tree density of 2500 trees/hectare.

The total Capital budget for greenbelt development on 1.5Ha of area will be Rs. 28.468 lakhs out of which Rs. 16.00 lakhs is kept for afforestation as per Miyawaki Method and remaining Rs. 12.468 lakhs will be spent on developing 3-Tier Plantation within the plant premises. Also, a recurring budget of Rs. 3.5Lakhs shall be kept for the yearly maintenance of green cover

There is no violation under EIA, 2006/court case/show cause/direction if any, related to the project under consideration.

Name of the EIA consultant: Vardan EnviroNet [S.No. 37 in List of ACOs with their Certificate/Extension Letter no. NABET/EIA/2023/SA0158, Valid up to April 05.05.2023. Rev. 00.

#### STATUTORY CLEARANCES :

1	CO	:	The CO, Barhi, (Hazaribagh) vide letter no. 657, dated 03.09.2021 has mentioned the plot nos. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyani & Register II.
2	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 107, dated 18.01.2021 certified that the proposed project site is outside Eco Sensitive Zone of Hazaribagh Wildlife Sanctuary.
3	DFO Forest Distance	:	DFO, Hazaribagh West Division vide letter no. 6577, Dated 16.11.2019 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
4	Public Hearing	:	JSPCB vide Ref. no. B-2030, dated 23.09.2022 informed

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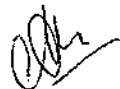
			that the Public Hearing conducted 15.07.2022.
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Based on the presentation made and information provided, the Committee decided that the proposal for Expansion of existing 24,600 TPA Billets unit by addition of 2x12T Induction Furnaces with CCM and replacement of existing 1x8T Induction Furnace by 1x12T Induction Furnace with CCM along with addition of 20 TPH Rolling Mill for final production capacity of Billets 1,18,800 TPA and Rolled Products 1,17,600 TPA of M/s JSV Enterprises at Plot no. 48, Barhi Industrial Area, Village : Konra, Tehsil : Barhi, Dist. : Hazaribagh, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – IV alongwith the following specific conditions :

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

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4. Enhancement of MS Billet production from 24000TPA to 148,500TPA through 3x15T Induction Furnaces (by replacing existing 1x8T Furnace with 1x15T & installing additional 2x15T Furnace along with CCM-2x2strand), Slag Crusher from 4200TPA to 33,000TPA capacity and production of 145,500TPA TMT Bars & Rolled Products by installing Rolling Mills of 1x25TPH Capacity by M/s Pavanputra Steel and Alloys at Plot No. 57/B, Barhi Industrial Area, Village : Konra, P.S. : Barhi, District : Hazaribagh, Jharkhand.

(Proposal No. : SIA/JH /IND1/406493 /2022).

Name of the consultant: Vardan Environet, Gurgaon

This is a new project which has been taken for appraisal on 09.12.2022.

M/s Pavanputra Steel and Alloys has made an online application vide proposal no. SIA/JH/IND1/406493/2022 dated 16.11.2022 along with copy of EIA/EMP report, Form – 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at 3(a) Metallurgical Industries under Category "B" of the schedule of EIA Notification, 2006 and appraised at State Level.

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 93<sup>rd</sup> meeting held on 18-27.02.2022 and SEIAA, Jharkhand has approved the ToRs in 94<sup>th</sup> meeting held on 13<sup>th</sup>, 14<sup>th</sup> & 15<sup>th</sup> April, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. 43, date 16.04.2022. The final EIA / EMP submitted by PP to SEIAA on 01.12.2022 and which was forwarded to SEAC on 08.12.2022.

The project of M/s Pavanputra Steel and Alloys is an existing steel plant located at Plot No. 57/B, Barhi Industrial Area, Village: Konra, P.S.: Barhi, District: Hazaribagh, Jharkhand is for obtaining fresh EC for enhancement of MS Billets production from 24,000 TPA to 148,500TPA through 3x15T Induction Furnaces (by replacing existing 1x8T Furnace with 1x15T & installing additional 2x15T Furnaces) along with CCM-2x2strand, Slag Crusher from 4,200 TPA to 33,000 TPA capacity and production of 145,500TPA TMT Bars & Rolled Products/Rods etc. by installing Rolling Mills of 1x25TPH Capacity within the existing plant area of 2.25Ha (5.57Acres).

**Environmental Site Settings:**

S. No.	Particulars	Details	Remarks
1	Total land	2.25ha [Private: 2.25ha]	Land Use: Industrial
2	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	No additional land required for the project. Land has already been acquired and under the possession of the company. Land documents have been submitted.	

S. No.	Particulars	Details	Remarks																					
	Existence of habitation & involvement of R&R, if any.	R&R is not applicable <b>Existence of Habitation</b> Project Site – Nil Study Area <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Barhi Outer</td> <td>0.14</td> <td>West</td> </tr> </tbody> </table>	Habitation	Distance	Direction	Barhi Outer	0.14	West	--															
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3	Latitude and Longitude of all corners of the project site.	<table border="1"> <thead> <tr> <th>Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>24°18'25.759"N</td> <td>85°25'52.046"E</td> </tr> <tr> <td>B</td> <td>24°18'22.154"N</td> <td>85°25'56.472"E</td> </tr> <tr> <td>C</td> <td>24°18'19.280"N</td> <td>85°25'53.421"E</td> </tr> <tr> <td>D</td> <td>24°18'20.272"N</td> <td>85°25'47.984"E</td> </tr> <tr> <td>E</td> <td>24°18'20.303"N</td> <td>85°25'47.488"E</td> </tr> <tr> <td>F</td> <td>24°18'20.304"N</td> <td>85°25'47.941"E</td> </tr> </tbody> </table>	Point	Latitude	Longitude	A	24°18'25.759"N	85°25'52.046"E	B	24°18'22.154"N	85°25'56.472"E	C	24°18'19.280"N	85°25'53.421"E	D	24°18'20.272"N	85°25'47.984"E	E	24°18'20.303"N	85°25'47.488"E	F	24°18'20.304"N	85°25'47.941"E	--
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E	24°18'20.303"N	85°25'47.488"E																						
F	24°18'20.304"N	85°25'47.941"E																						
4	Elevation of the project site	389 m above mean sea level	--																					
5	Involvement of Forest land, if any	No involvement of Forest Land	--																					
6	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	<b>Project Site:</b> No water bodies within the project site <b>Study area</b> <table border="1"> <thead> <tr> <th>Water Body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Tilaiya Dam Reservoir</td> <td>2.60km</td> <td>North</td> </tr> <tr> <td>Barhi Reservoir</td> <td>4.3km</td> <td>South</td> </tr> <tr> <td>Barhi River</td> <td>1.34km</td> <td>SW</td> </tr> <tr> <td>Barakar River</td> <td>5.12km</td> <td>W</td> </tr> </tbody> </table>	Water Body	Distance	Direction	Tilaiya Dam Reservoir	2.60km	North	Barhi Reservoir	4.3km	South	Barhi River	1.34km	SW	Barakar River	5.12km	W	--						
Water Body	Distance	Direction																						
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Barhi Reservoir	4.3km	South																						
Barhi River	1.34km	SW																						
Barakar River	5.12km	W																						
7	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	The ESZ of Hazaribagh Wildlife Sanctuary is at a distance of 8.9 km from the project site. However the boundary of Hazaribagh WLS is at a distance of 12.8 km from the project site	--																					

Khata no. & Plot no. of the project :

Khata No.	23	44	56	73	67
Plot No.	146P,167P,168,169, 170P,171P,154P	530P	158,159,160, 162,161,163	164,165,166, 151P,152P	172P

Company started with production of 24,000 TPA M.S. Ingot/Billet through 1x8T Induction Furnace & CCM (2 Strand, Rad. 4/7) along with Slag Crusher of 4,200 TPA capacity after obtaining the Consent To Establish (CTE) vide letter No. JSPCB/HO/RNC/CTE-8893739/2021/8, dated 08.01.2021 and the latest Consent to Operate (CTO) vide ref No. JSPCB/HO/RNC/CTO- 13054791/2022/1434, dated 12.10.2022 is valid upto 30.06.2025.

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

Sl. No	Plant Facilities	Existing Installed Units and Capacity		Proposed Units and Capacity		Total after Expansion	
		Unit	Capacity	Unit	Capacity	Unit	Capacity
1.	Induction Furnace	1x8T	24,000 TPA MS Billets	Replacement of existing 1x8T by 1x15T and additional 2x15T	124,500 TPA MS Billets	3x15T	MS Billets 148,500 TPA
2.	Continuous Casting Machine	1x2 strand, Rad. - 4/7		1x2 strand, Rad. - 4/7		2x2 strand, Rad. - 4/7	
3.	Rolling Mill	--	--	1x25TPH	145,500 TPA TMT Bars & Rolled Products/Rods etc.	1x25TPH	145,500 TPA TMT Bars & Rolled Products/Rods etc.
4.	Slag Crusher	--	4,200 TPA	Replacement of existing facility by 1 x 10 TPH	33,000 TPA	--	33,000 TPA

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

Sl. No.	Item	Existing Requirement in TPA	Proposed Requirement in TPA	Total Requirement in TPA	Source	Distance & Mode of Transport
<b>STEEL MELTING SHOP –(MS Billets 148,500 TPA)</b>						
1.	Sponge Iron	19,200	99,600	118,800	Local Plant in Hazaribagh, Ramgarh, Giridih, etc	40 to 120 km By Road
2.	Pig Iron	7,200	37,350	44,550		
3.	Scrap	3,600	18,675	22,275		
4.	Ferro-alloys	48	249	297		
<b>Total</b>		<b>30,048</b>	<b>1,55,874</b>	<b>185,922</b>		
<b>ROLLING MILL – (TMT Bars &amp; Rolled Products/Rods 145,500TPA)</b>						
1.	Hot MS Billets	--	148,500	148,500	In house	--

*(Handwritten signatures and marks)*

The total requirement of makeup water for industrial and domestic purposes after the proposed expansion will be 190.0KLD. The Company will procure water from ground water sources through bore wells with due permission from Central Ground Water Authority (CGWA). The application number for the CGWA NOC is 21-4/941/JH/IND/2022.

Total requirement of power for the after proposed expansion will be 22.0MVA. Existing requirement of power for the operation of existing units is 4.50MVA and requirement is met through DVC. Permission for the additional power requirement has been obtained from DVC. The Application number for the DVC NOC is TSC-IV/W-63(B)/6/841. One DG set of 63kVA will be installed along with the existing DG set of 500kVA.

Baseline Environmental Studies: 1<sup>st</sup> December 2021 to 28<sup>th</sup> February 2022

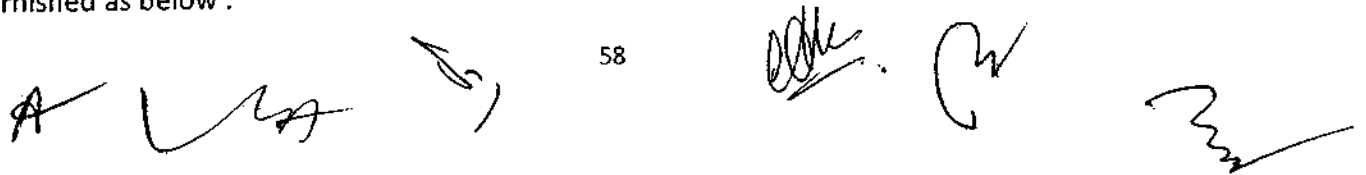
Parameters	Description	Permissible Level
AAQ parameters at 8 Locations (min and max)	PM2.5 22.5 µg /m <sup>3</sup> and 43.1 µg /m <sup>3</sup> PM10 43.5 µg /m <sup>3</sup> to 70.6 µg /m <sup>3</sup> SO <sub>2</sub> 8.7 µg /m <sup>3</sup> to 25.9 µg /m <sup>3</sup> NO <sub>2</sub> 18.9 µg /m <sup>3</sup> to 37.3 µg /m <sup>3</sup> CO 0.39 mg/m <sup>3</sup> to 1.81 mg/m <sup>3</sup>	60 µg/ m <sup>3</sup> 100 µg/ m <sup>3</sup> 80 µg/ m <sup>3</sup> 80 µg/ m <sup>3</sup> 02 mg/m <sup>3</sup>
Ground Water Quality	pH varies from to 7.41 to 7.65 Total Hardness varies from 214 to 258 mg/L. Total Dissolved Solids varies from 325 to 434 mg/L.	6.5-8.5 200-600 mg/L 500-2000 mg/L
Surface Water Quality	pH varies from to 7.58 to 7.89 Dissolved Oxygen varies from 5.8 to 6.6 mg/L. BOD varies from 9.84 to 14.00 mg/L.	IS:2296 Class C Norms
Soil Quality	pH 7.60 to 7.85 Potassium K 123.0 to 192.0 kg/ha Available nitrogen N 148.26 to 228.0 (Kg/hect)	----
Noise Level	1 Day Time (6:00 a.m. to 10:00 p.m.) 67.29 Leq dB(A) Night Time (10:00 p.m. to 6:00 a.m.) 59.18 Leq dB(A)	75 Leq dB (A) 70 Leq dB (A)
	2 Day Time (6:00 a.m. to 10:00 p.m.) 48.12 Leq dB(A) to 53.96 Leq dB(A) Night Time (10:00 p.m. to 6:00 a.m.) 40.72 Leq dB(A) and 44.92 Leq dB(A)	55 Leq dB (A) 45 Leq dB (A)

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Parameters	Description	Permissible Level																														
Traffic assessment study findings	<ul style="list-style-type: none"> <li>The traffic study was carried at two locations NH-2 (Delhi Kolkata Highway) at 50m road distance in East and NH-31 (Ranchi Patna Road) at 2km road distance in West</li> <li>Transportation of Raw material, Fuel and Finished product will be done by Road.</li> <li>Existing PCU is 4726PCU/Day on NH-31 and 4331 PCU/day on NH-2 and existing level of service (LOS) is:</li> </ul> <table border="1" data-bbox="341 613 1104 882"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/day)</th> <th>C (Capacity in PCU/day)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH-31</td> <td>4726</td> <td>15000</td> <td>0.32</td> <td>B</td> </tr> <tr> <td>NH-2</td> <td>4331</td> <td>15000</td> <td>0.29</td> <td>B</td> </tr> </tbody> </table> <p>PCU load after proposed project will be 4783 PCU/Day (Existing 4726 + 57) for NH-31 and 4445 PCU/day (Existing 4331 + Addl. 114) for NH-2 and level of service (LOS) will be;</p> <table border="1" data-bbox="347 1070 1098 1335"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/day)</th> <th>C (Capacity in PCU/day)</th> <th>V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH-31</td> <td>4,783</td> <td>15,000</td> <td>0.32</td> <td>B</td> </tr> <tr> <td>NH-2</td> <td>4,445</td> <td>15,000</td> <td>0.30</td> <td>B</td> </tr> </tbody> </table> <p><i>Conclusion: Level of Service will be "B" i.e. Very Good for NH-31 and NH-2 including additional traffic due to proposed project.</i></p> <p><i>Note: Capacity as per IRC 64:1990 Guideline for capacity for roads in Rural Areas.</i></p>	Road	V (Volume in PCU/day)	C (Capacity in PCU/day)	Existing V/C Ratio	LOS	NH-31	4726	15000	0.32	B	NH-2	4331	15000	0.29	B	Road	V (Volume in PCU/day)	C (Capacity in PCU/day)	V/C Ratio	LOS	NH-31	4,783	15,000	0.32	B	NH-2	4,445	15,000	0.30	B	
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Flora and fauna	Schedule - I species such as Indian Pangolin, Sloth Bear, White-Rumped Vulture and Indian Vulture, Indian Peafowl are reported in study area. Wildlife conservation plan have been submitted to the concerned dept.																															

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

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Units	Solid Wastes	Qty. In TPA	Disposal Practice
Induction Furnace	Slag	31185	After metal extraction (approx. 12%of slag), it will be supplied to outside parties for construction filling.
CCM	Scales & end-cuts	2940	Will be charged back as scrap in the induction furnace for In-House Reuse.
Rolling Mill	Mill Scale & cuttings	3000	Will be charged back as scrap in the induction furnace for In-House Reuse.
Bag Filter Dust from process	Dust from process	297	Supplied to outside parties for construction filling

### Public Consultation

Details of advertisement given	"Hindustan Times" on 06.07.2022, "Prabhat Khabar" on 07.07.2022 and "Hindustan" on 07.07.2022
Date of public consultation	08.08.2022
Venue	Anganwadi Kendra, Turitola Village: Konra, Block-Barhi, Hazaribagh, Jharkhand.
Presiding Officer	Shri. Rakesh Roshan, Additional Collector, Hazaribagh
Major issues raised	The issues raised in the public hearing were for employment to be given to local people in the proposed expansion, control of air pollution from the project area and improvement in electrical system in the villages.






Action plan as per MoEF&CC O.M. dated 30/09/2020

S. No	Activities	Physical Targets	Year of Implementation (Budget in INR) In Lakhs			Total Expenditure (Rs.) In Lakhs
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	
1.	Air Pollution around the Project Site	Plantation of 1000 Number of Trees around the project site.	4 (1000 Plants x Rs. 400 per plant)	--	--	4

S. No	Activities	Physical Targets	Year of Implementation			Total Expenditure (Rs.) In Lakhs
			(Budget in INR) In Lakhs			
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	
2.	Employment of Local People.	The proposed manpower for the expansion is 180 and around 250 people will be employed during the construction phase. The people in the village around the project site will be given priority based on their skill and qualification.	--	--	--	12.8
		Development of Training Centre for self-employment in sewing, pickle making and packaging	4.26	5.54	3	
3.	Improvement in Electricity	Installation of solar street light in 15 villages around the project site.	6 (For 5 Villages)	6 (For 5 Villages)	6 (For 5 Villages)	18
<b>Grand Total in Rs.</b>			<b>14.26</b>	<b>11.54</b>	<b>9</b>	<b>34.80</b>

Existing Capital cost of project was Rs. 16.00 Crores. The capital cost of the proposed project is Rs. 33.00 Crores and the capital cost for environmental protection measures is proposed as Rs. 1.0244 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 0.1715 Crores.

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The employment generation from the proposed expansion is 139.

The details of cost for environmental protection measures are as follows:

Sl. No.	Environmental Protection Measures	Proposed Rs. in Lakhs	
		Capital Cost	Recurring Cost
1	Air Pollution Control & Noise Management	50.0	4.5
2	Water Pollution Control Measures	15.0	2.5
3	Storage and Solid Waste Management	7.0	1.0
4.	Environment Monitoring Program	12.0	5.95
5.	Occupational Health & Safety	10.0	1.2
6.	Greenbelt Development	8.44	2.0
7.	Addressal of Public Consultation Concern	34.80	-
<b>Total</b>		<b>137.24</b>	<b>17.15</b>

The greenbelt development needs to be carried out in 33% of total plant area i.e. 0.74Ha (1.84 Acres) with tree density of 2500 trees per hectare. Proponent has already planted 110 number of trees till date within the project premises. The budget of Rs. 8.44 lakhs to be spent in 3 years has been kept for plantation of 2110 additional trees on the 0.74 hectares along the boundary and inside the plant area including gap filling plantation to be done in existing green area (to increase tree density to 2500). The green belt will be maintained every year and the budget of approx. Rs. 2.0 Lakhs shall be kept as yearly maintenance cost.

There is no violation under EIA, 2006/court case/show cause/direction if any, related to the project under consideration.

Name of the EIA consultant: Vardan EnviroNet [S.No. 37 in List of ACOs with their Certificate/ Extension Letter no. NABET/EIA/2023/SA0158, Valid up to April 05.05.2023. Rev. 00.

#### STATUTORY CLEARANCES :






1.	CO	:	The CO, Barhi (Hazaribag) vide letter no. 594, dated 13.08.2021 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
2.	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 2187, dated 06.12.2021 certified that the proposed project site is outside of Eco Sensitive Zone of Hazaribag Wildlife Sanctuary.

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3.	DFO Forest Distance	:	DFO, Hazaribagh West Division vide letter no. 4440 dated 21.12.2021 certified that the distance of the nearest Reserved Forest / Protected Forest from the project site is more than 250 m.
4.	Public Hearing	:	JSPCB vide Ref. no. B-2029, dated 23.09.2022 informed that the Public Hearing conducted 08.08.2022.
5.	Consent to Establish (CTE) & Consent ot Operated (CTO)	:	<ul style="list-style-type: none"> <li>▪ CTE issued by JSPCB vide letter No. JSPCB/HO/RNC/CTE-8893739/2021/8, dated 08.01.2021.</li> <li>▪ CTO issued by JSPCB vide ref No. JSPCB/HO/RNC/CTO-13054791/2022/1434, dated 12.10.2022 is valid upto 30.06.2025.</li> </ul>
6.	Water requirement permission	:	The total requirement of makeup water for industrial and domestic purposes after the proposed expansion will be 190.0KLD. The Company will procure water from ground water sources through bore wells with due permission from Central Ground Water Authority (CGWA). The application number for the CGWA NOC is 21-4/941/JH/IND/2022.
7.	Power requirement permission	:	Total requirement of power for the after proposed expansion will be 22.0MVA. Existing requirement of power for the operation of existing units is 4.50MVA and requirement is met through DVC. Permission for the additional power requirement has been obtained from DVC. The Application number for the DVC NOC is TSC-IV/W-63(B)/6/841. One DG set of 63kVA will be installed along with the existing DG set of 500kVA.

Based on the presentation made and information provided, the Committee decided that the proposal for Enhancement of MS Billet production from 24000TPA to 148,500TPA through 3x15T Induction Furnaces (by replacing existing 1x8T Furnace with 1x15T & installing additional 2x15T Furnace along with CCM-2x2strand), Slag Crusher from 4200TPA to 33,000TPA capacity and production of 145,500TPA TMT Bars & Rolled Products by installing Rolling Mills of 1x25TPH Capacity by M/s Pavanputra Steel and Alloys at Plot No. 57/B, Barhi Industrial Area, Village : Konra, P.S. : Barhi, District : Hazaribagh, Jharkhand is recommended for grant of EC. The varlous conditions for grant of EC is enclosed as Annexure – IV alongwith the following specific conditions :

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

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**5. Proposed Residential Project "Triveni Imperial" of M/s Shree Triveni Realtors LLP, Village : Asangi, Tehsil : Gamharia, Thana : Adityapur, Distt. : Saraikela Kharsawan, Jharkhand.**

**(Proposal No. : SIA/JH/INFRA2/405970/2022)**

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

This is a new project which has been taken for appraisal on 09.12.2022.

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

**EC Application for : Proposed Residential project: Total built-up area is 29032.99 sq.m.**

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

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M/s Shree Triveni Realtors LLP has planned to develop a Residential Building located at Mouza-Asangi, Tehsil-Gamharia, Thana-Adityapur, District-Saraekela Kharsawan, State-Jharkhand.

Total plot area of the Project site is 8173.16 sq m (0.82 ha/2.01 acres). Project involves development of 4 nos. of residential buildings RESI BLDG-1(BLOCK A), DUPLEX -1 (BLG AA), SIMPLEX -1 (BLDG AA), RESI BLDG-1 (BLOCK B) with the allied facilities like waste management system, storm water management system, water supply system, sewerage system, Fire Fighting Management, adequate parking facility and green area. Built-up area of project after development will be approx. 29032.99 Sq.m.

**Project and Location Details :**

Parameters	Description
Plot Area	8173.16 sq. m. (approx. 0.82 ha/2.01 acres)
Project Cost	INR 32 Crores
Built-up Area (@ 2.81 F.A.R)	29032.99 sq. m.
Green Area (@ 17 % of plot area)	1389.4 sq.m
Population	1221
Water Requirement	124 KLD
Fresh Water Requirement	75 KLD
Wastewater Generation	94 KLD
STP Capacity	120 KLD
Total Municipal Waste	568 kg/day
Power Requirement	2000 KVA (Jharkhand State Electricity board)
DG Sets	3 no. of DG set of Total 740 KVA (1*380+2*180)
RWH Pits	04 no.
Parking Area	242 ECS (2-wheelers:74 , Car parking: 167, Other vehicles : 1)
Connecting road	Tata-Kandra Road (2.54 km, N) SH – 5 (3.00 km, N)
National Highway	NH – 118 (3.10 km, N)
Nearest Railway Station	Adityapur Railway Station (2.58 km, NE)
Airport	Sonari Airport(Jamshedpur Airport) (5.80 km, NE)
Nearest Hospitals	Government Hospital (3.00 km, NE)

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	Kantilal Gandhi Memorial Hospital (4.41 km, NE)
Nearest Water Bodies	Sitarampur Reservoir (3.46 km, W) Kharkai River (0.81 km, S) Subarnrekha River (7.23 km, N) Beldih Lake (5.76 km, NE)

**CO-ORDINATES**

Point as in Maps	Latitude	Longitude
1	22 46 07.00N	86 08 18.97E
2	22°46'3.15"N	86° 8'19.03"E
3	22 46 09.21N	86 08 19.23E
4	22°46'9.40"N	86° 8'19.91"E
5	22°46'09.09"N	86°08'20.00"E
6	22°46'02.84"N	86°08'20.03"E
7	22°46'6.14"N	86° 8'20.41"E

**LAND DETAILS :**

Khata No.	Plot No.
07	1076, 1084, 1086 & 1087

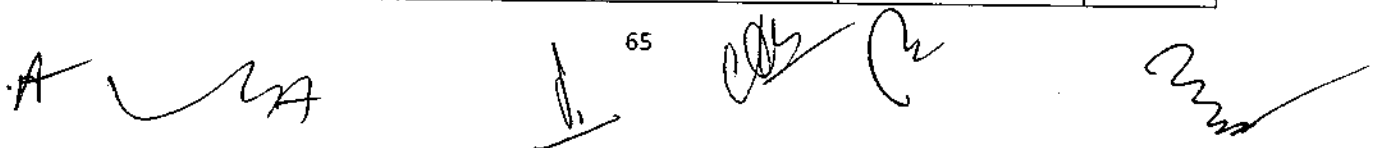
**Area Summary :**

S. No.	Description	Area (Sq M)
A.	<b>Total plot area</b>	<b>8173.16</b>
B.	Proposed Ground Coverage (@25.34% of plot area)	2070.91
C.	<b>Proposed FAR (@ 2.81)</b>	<b>22993.21</b>
D.	Non FAR Area (Strain case, Lift, Balcony, Ramp, Accessory Use, Basement Parking)	6039.78
E.	<b>Built-up Area (C+D)</b>	<b>29032.99</b>
F.	Green Area (@17% of net plot area)	1389.4
G.	paved area (@10% of net plot area)	817.32
H.	Height (m)	40 m
I.	No of Dwelling Units	236

**Block Wise Dwelling Units Details**

S. NO.	Building Blocks (Residential Building)	Number of Floors	DU'S
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1.	RESI BLDG-1(BLOCK A) (GF+13)	14	128
2.	DUPLEX -1 (BLG AA)	2	2
3.	SIMPLEX -1 (BLDG AA)	1	2
4.	RESI BLDG-1 (BLOCK B) (B+GF+13)	14	104
	<b>Total</b>		<b>236</b>

**STATUTORY CLEARANCES :**

1	DFO Forest Distance	:	DFO, Seraikela Forest division vide letter no. 2165, dated 22.10.2022 certified that the distance of notified forest is more than 250 m from proposed project site.
2	DFO wildlife	:	DFO, Dalma Elephant Project vide letter no. 1471, dated 11.10.2022 certified that the proposed project site is outside of Eco Sensitive Zone of Dalma Wildlife Sanctuary. The additional comments given by the DFO, Dalma Elephant Project is not appropriate.
3	CO certificate	:	The CO, Gamharia vide letter no. 883, dated 18.10.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyan & Register II.
4	AAI NOC	:	Airport authority of India issued NOC vide NOC ID JAMS/EAST/B/092022/698974, dated 07.10.2022.
5	Fire Department	:	A fire advisory has been issued by Fire Department, Jharkhad, Ranchi vide memo no. 3581/Tech./2022, dated 15.09.2022.
6	Building Plan	:	Conceptual Plan submitted.

**Water and waste water Requirement Details**

Category	Population/ Area (sq m) /Capacity	Standard (LPCD)	Water Requirement (KLD)	Fresh Water Requirement (KLD)	Recycled Water requirement (KLD)
<b>Domestic</b>					
Residents	1062	100	106	74	32
Staff	53	45	2	0.6	1.4
Visitors	106	15	2	1.4	0.6
<b>Total Domestic Water Demand</b>			<b>110</b>	<b>75</b>	<b>34</b>






*(Handwritten signatures and marks)*

Landscape	1389.4 sqm	6 ltr/sqm	8	-	8
Fire Fighting			1	-	1
DG cooling	740 KVA(1*380+ 2*180)	0.9 l/kVA/hr	5	-	5
<b>Total</b>		-	<b>124</b>	<b>75</b>	<b>48</b>

Category	Total Quantity (KLD)
Domestic water Req.	75
Flushing water Req.	34
Sewage generation (@80% of the Domestic + 100% flushing water requirement)	94
<b>Capacity of STP</b>	<b>120</b>
Recovered water from STP (90% of Waste water)	85
1. Flushing	34
2. Landscaping	8
3. Fire Fighting	1
4. DG cooling	5
5. Road washing/sewer	37

#### Solid Waste Requirement

S. No	Description	Occupancy/Area	kg/capita/day	Total Solid Waste Generation (kg/day)	Recyclable (kg/day)	Non-Recyclable (kg/day)
1.	Residents	1062	0.5	531	425	106
2.	Staff	53	0.25	13	10	3
3.	Visitors	106	0.15	16	13	3



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4.	Landscape waste	0.34 acres	1 kg/acres	1	1	-
5.	STP sludge	120 KLD	--	7	6	1
<b>Total Waste Generated</b>				<b>568</b>	<b>455</b>	<b>113</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development

- Combination of local trees and shrubs are planned within the project site.
- Total green area provided at the site is 1389.4 sq m (17 % of the net plot area). Out of which Green belt area is 1225.9 sq.m i.e. 15% of the net plot area and landscape area is 163.5 sq.m i.e. 2 % of the net plot area which will enhance the beauty of the site and help combat air and noise pollution.
- The plant species will be selected on the basis of Guidelines for Developing Green Belts, CPCB March 2000.

### Solid Waste Management

#### During Construction Phase

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

#### During Operation Phase

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

### Water Quality Management

#### During Construction Phase

- The site drainage will be planned in such a way that there is no accumulation of water/wastewater within the project premises or in the vicinity of the site.
- Mobile toilets to be provided for construction Laborers.

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- Generated waste water will be collected through tankers and dispose to septic tank for treatment.

#### **During Operation Phase**

- STP of capacity i.e. 120 KLD is proposed for treatment of wastewater.
- Treated waste water would be reused for Horticulture, DG/HVAC cooling, flushing, fire fighting.
- Use of water efficient plumbing fixtures to conserve water.
- Approx. 75 KLD of fresh water is required during operational phase of the project.

#### **Air Quality Management**

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

#### **Energy conservation**

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

#### **Undertaking**

1. An affidavit stating that no construction work has been commenced yet.
2. An undertaking that 94 m<sup>3</sup>/day recycles waste water generated at Proposed Khata no. 7 & Plot no. 1076,1084,1086,1087 Mouza-Asangi, Tehsil-Gamharia, Thana-Adityapur, District-Saraekela Kharsawan, State-Jharkhand by M/s Shree Triveni Realtors LLP
3. An undertaking that 2000 KVA Power requirement in Proposed Khata no. 7 & Plot no. 1076,1084,1086,1087 Mouza-Asangi, Tehsil-Gamharia, Thana-Adityapur, District-Saraekela Kharsawan, State-Jharkhand by M/s Shree Triveni Realtors LLP.

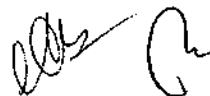
#### **During the presentation the following documents were sought :**

- i. Parking details to be revised providing break up of 2 wheeler & 4 wheeler parking and also specifying the location of parking .
- ii. No. of RWH pits to be increased from 03 to 04 and also ensure usage of Harvested water as much possible.





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- iii. Land scape plan to be revised clearly depicting the green belt development along the boundary of the premises.
- iv. Land agreement documents to be provided.

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

**Based on the presentation made and information provided, the Committee decided that the proposal for Proposed Residential Project "Triveni Imperial" of M/s Shree Triveni Realtors LLP, Village : Asangi, Tehsil : Gamharia, Thana : Adityapur, Distt. : Saraikela Kharsawan, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – V 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.
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- IX. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- X. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.
- XI. Sufficient number of EV fast charging points to be installed.

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6. Dahuatola Stone Deposit of Partners : (1) Sri Ravi Kumar Nirala, (2) Sri Ashok Yadav & (3) Sri Gautam Kumar, Village : Dahuatola, Thana : Jainagar, Distt. : Koderma, Jharkhand (0.777 Ha).

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

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 22,222.73 cu m/annum or 60001.36 TPA

Name of the consultant: P & M Solution, Noida

This is a new project which has been taken for appraisal on 09.12.2022.

**Project and Location Details :**

Sl	Parameter	Details
1	Project Name	: Dahuatola Stone Deposit
2	Lessee:	: <b>Sri Ravi Kumar Nirala (Partner),</b> S/O-Late Chitranjan Yadav, at At-Chatkari, P.S- Chalkusha, Dist Hazaribagh, Jharkhand. <b>Sri Ashok Yadav (Partner)</b> S/O- Sri Gopal Yadav At/P.O-Indarwa, P.S/District- Koderma. <b>Sri Gautam Kumar (Partner)</b> S/O- Sri Surendra Prasad at Chhabra Gali, Ward no-16, Near Samnta Petrol Pump, P.O-Jhumritelaiya P.S-Telaiya, Dist. Koderma.
3	Lease Address	: Village – Dahuatola, Thana- Jainagar, Thana No. – 58 District – Koderma, State :-Jharkhand.
4	Lease Area	: 0.777 ha Acres- 1.92 Acres
5	Type of Land	: Non Forest – Raiyati Land
6	Project Cost	: Rs. 40 Lakhs
7	EMP Budget	: Capital: 3.64 Lakhs Recurring: 3.27 Lakh / year
8	CSR / CER Budget	: Rs. 0.80 Lakhs
9	New or Expansion	: New
10	Mineable Reserves	: cum.: 2,19,030 cum Tonnes: 591381.00 tons
11	Mine Life	: 9.85 or 10 years
12	Man power	: 17
13	Water Requirement	: 9.0 KLD(Drinking: 0.17 KLD, Dust Suppression: 7.04 KLD, Plantation: 1.94 KLD)
14	Water Source	: From Nearby villages by tankers
15	DG Set / power	: NA
16	Crusher	: No crusher
17	Nearest Water Body	: Barakar River, at approx. 1.50 km, SW direction Tilaia Dam Reservoir , at approx. 7.40 km, SW direction

18	Nearest Habitation	:	Dahuatola village, at 650 meters
19	Nearest Rail Station	:	Hirodih Railway station, approx. 2.50 km towards NNE direction.
20	Nearest Air Port	:	Birsa Munda Airport, approx. 118.6 km towards S direction.
21	Nearest Forest	:	Beharabad PF, Approx. 8.0 km towards SSE direction of mine site.
22	Road & Highways	:	NH-20, Approx. 10.9 km. in West direction. SH-13, Approx. 11.5 km. in North direction.

#### CO-ORDINATES

1	Latitude	From 24°21'34.58"N	To 24°21'37.78"N
2	Longitude	From 85°35'22.92"E	To 85°35'26.87"E

#### LAND DETAILS :

Khata No.	Plot No.
93	2272 (P)

#### STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Koderma vide memo no. 1659/M, dated 22.10.2022.
2	CO	:	The CO, Jainagar (Koderma) vide letter no. : 513, dated 30.08.2022 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. 1661, dated 26.10.2022 certified that 01 other mining lease (6.30 acre) exists within 500 m radius from proposed project site and total area is 8.22 acre (less than 5 ha).
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. : 1750, dated 03.09.2022 certified that the proposed project site is outside of Eco Sensitive Zone of Koderma Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Koderma Forest Division vide letter no. : 4149, dated 13.10.2022 certified that the distance of reserved / protected forest is 870 m from proposed project site.

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6	DSR	:	The DC – cum – District Magistrate, Koderma vide letter no. 1664/M, dated 26.10.2022 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 03.09.2022.
8	Mine Plan Approval	:	Additional Director, Geology, Hazaribag vide letter no. G/2022-23-343, dated 28.10.2022.

### Working Details

1	Mining Method	:	Opencast semi Mechanized Mining method
2	Quarry Area	:	5 years–0.38ha Life of Mine – 0.532 ha
3	Waste Generation	:	5 years– 2267.625 cu.m
4	Stripping Ratio	:	1: 0.007
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	350 AMSL to 347 AMSL
8	Ground Level Elevation	:	350 AMSL
9	Ultimate Working Depth	:	319 AMSL (6mbgl )
10	Water Table	:	309 AMSL (10 mbgl)
11	Topography of Mine	:	Area represents undulating of Granite/Gneiss
12	Explosive Requirement	:	8kg/day
13	Diesel/Fuel requirement	:	90 litre/day

### Production Details

Year	Production of stone (cum)	Production of stone (tons)	Bench RL in Meters
1 <sup>st</sup>	22222.73	60001.36	343mRL - 349mRL
2 <sup>nd</sup>	22222.725	60001.3575	337mRL - 347mRL
3 <sup>rd</sup>	22222.73	60001.36	337mRL - 343mRL
4 <sup>th</sup>	22222.72	60001.3575	331mRL - 343mRL
5 <sup>th</sup>	22222.73	60001.36	325mRL - 337mRL

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Total	111113.635	300006.795	
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### Land Use

Pattern of Utilization	Existing (Ha)	Plan period(Ha)	Conceptual stage (Ha)
Excavation	NIL	0.38	0.532 (0.365 ha) area shall be left as water reservoir for rain water harvesting, 0.167 ha. shall be dead bench plantation)
Road	NIL	0.008	NIL
Waste Dump	NIL	0.08	NIL
Plantation (Green Belt)	NIL	0.245 (Within Safety Zone)	0.245 (Within Safety Zone)
Unused	0.777	-	-
<b>Total leasehold area</b>	<b>0.777</b>	<b>0.713</b>	<b>0.777</b>

### ENVIRONMENT MANAGEMENT

#### Green Belt Development

S. No.	Location		Area/Length	No of Trees
1	Safety Zone	:	0.245 ha	615
2	Along Approach Road		0.560 km	30

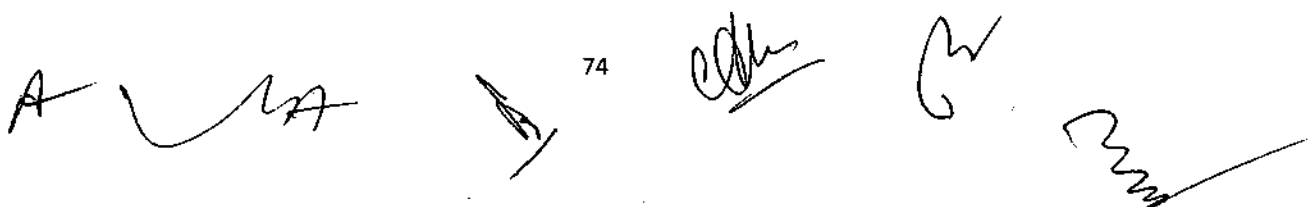
- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality 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 2267.625 cum intercalated waste shall be generated during the plan period. 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

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- 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.

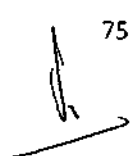
### **Air Quality Management**

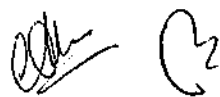
- Dust extractor or wet drilling shall be followed to control dust at source of emission during drilling.
- Sharp drill bits will be used for drilling and regrinding will be done periodically to reduce the dust generation.
- Controlled blasting to reduce dust emission and reduction in NOx emission
- 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.



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

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Dahuatola Stone Deposit of Partners : (1) Sri Ravi Kumar Nirala, (2) Sri Ashok Yadav & (3) Sri Gautam Kumar, Village : Dahuatola, Thana : Jainagar, Distt. : Koderma, Jharkhand (0.777 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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7. Sundarpahari Stone Deposit of Md. Joshim Ali, Village : Sundarpahari, Thana : Pakur(M), Distt. : Pakur, Jharkhand (1.893 Ha).

(Proposal No. : SIA/JH/MIN/407745 /2022).

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 93<sup>rd</sup> meeting held on 18-27.02.2022 and SEIAA, Jharkhand has approved the ToRs in 94<sup>th</sup> meeting held on 13<sup>th</sup>, 14<sup>th</sup> & 15<sup>th</sup> April, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. 89, date 16.04.2022. The final EIA / EMP submitted by PP to SEIAA on 25.11.2022 and which was forwarded to SEAC on 28.11.2022.

EC Application for : Proposed Capacity- 51,003.22 cu.m/annum or 1,27,508.05 TPA

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

This is a new project which has been taken for appraisal on 09.12.2022

**PROJECT and LOCATION Details:**

Sl	Parameter	Details
1	Project Name	: Sundarpahari Stone Deposit
2	Lessee:	: Md. Joshim Ali S/o Haidar Ali At Village- Kismat Lakhanpur, Thana - Pakur(M), District- Pakur, Jharkhand.

*(Handwritten signatures and marks)*

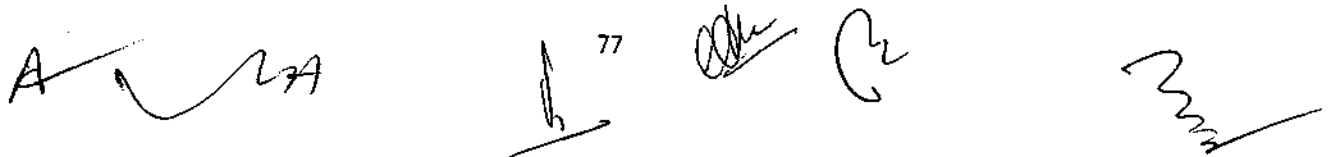
3	Lease Address	:	Village – Sundarpahari, Thana- Pakur(M), District – Pakur, State – Jharkhand.	
4	Lease Area	:	1.893 ha	Acres- 4.68 Acre
5	Type of Land	:	Non Forest – Raiyati Land	
6	Project Cost	:	Rs. 30 Lakhs	
7	EMP Budget	:	Capital: 4.01 Lakhs	Recurring: 3.27 Lakh / year
8	CSR / CER Budget	:	Rs. 0.60 Lakhs	
9	New or Expansion	:	New	
10	Mineable Reserves	:	Cu.m.: 4,37,482.60 cum	Tonnes: 10,93,706.50 tons
11	Mine Life	:	8.57 years	
12	Man power	:	32	
13	Water Requirement	:	8.0 KLD (Drinking: 0.35 KLD, Dust Suppression: 4.70 KLD, Plantation:3.0 KLD)	
14	Water Source	:	From Nearby villages by tankers	
15	DG Set / power	:	-	
16	Crusher	:	No crusher	
17	Nearest Water Body	:	Bansloi Nadi Approx. 7.0 km towards SE direction. Farakka Feeder canal, Approx. 9.50 km towards ENE direction.	
18	Nearest Habitation	:	Sundarpahari, 0.30 km, S direction.	
19	Nearest Rail Station	:	Nagarnabi Railway station, approx. 10.5 km toward East direction.	
20	Nearest Air Port	:	Kazi Nazrul Islam Airport, approx. 123.50 km towards SSW direction.	
21	Nearest Forest	:	Protected Forest near Mohanpur Village at approx 3.0 km towards W direction of mine site. RF near Mahurpur village at 9.50 km towards S direction of mine site.	
22	Road & Highways	:	NH-114A , Approx. 6.50 km. in North direction. SH-7, Approx. 3.5 km in South East direction.	

**CO-ORDINATES :**

1	Latitude	From 24°34'39.55" N	To 24°34'44.93" N
2	Longitude	From 87°51'26.47" E	To 87°51'33.09" E

**LAND DETAILS :**

Khata no.	Plot no.
02	948, 949/P, 950/P, 951/P


 A series of handwritten signatures and initials are present at the bottom of the page. From left to right, there is a signature that looks like 'A', a signature that looks like 'NA', a signature with the number '77' above it, a signature that looks like 'C', and a signature that looks like 'M'.

06	955, 956, 957/P, 958/P, 940/P
19	941/P, 942/P, 943/P, 944, 945, 946, 947
28	952/P, 953/P, 954/P, 1305, 1306, 1307, 1308, 1309 & 1310

### STATUTORY CLEARANCES

1	LOI/Lease docs	:	The LOI has been issued by District Mining Office, Pakur vide letter no. 1000/M, dated 01.07.2021.
2	CO	:	The CO, Pakur vide letter no. 1252/Ra, dated 17.08.2020 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Pakur vide memo no. 1664/M dated 20.09.2021 certified that 03 other lease (1.85 acre, 6.88 acre & 7.43 acre) exist within 500 m radius from proposed project site and total area is 8.43 Ha.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 1036, dated 23.06.2021 certified that the proposed project site is outside of Eco Sensitive Zone of Udhawa Lake Bird Sanctuary.
5	DFO Forest Distance	:	DFO, Pakur Forest Division vide letter no. 816, dated 28.05.2021 certified that the distance of reserved / protected forest is more than 250 m from the project site.
6	DSR	:	The DC – cum – District Magistrate, Pakur vide letter no. 1412/M, dated 12.08.2021 has informed that this project is part of District Survey Report (DSR) of Pakur district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Pakur vide Letter no. 1852/वि०, dated 31.07.2020 informed that Gram Sabha conducted on 29.07.2020.
8	Mine Plan Approval	:	DMO, Pakur vide Memo no. 1543/M dated 03.09.2021.
9	Public Hearing	:	JSPCB vide Letter no. 1843, dated 02.11.2022 informed that the Public Hearing conducted 29.09.2022.

### Working Details

1	Mining Method	:	Opencast other than fully mechanized method (OTFM)
2	Quarry Area	:	5 years – 1.426 ha   Life of Mine – 1.426 Ha

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3	Waste Generation	:	5 years- 48757.49 cu.m
4	Stripping Ratio	:	1: 0.16
5	Working Days	:	300
6	Benches: size & No	:	6m x 10m
7	Elevation of Mine	:	32 AMSL to 38 AMSL
8	Ground Level Elevation	:	9.90 AMSL
9	Ultimate Working Depth	:	7.0 AMSL (2.9 mbgl)
10	Water Table	:	4.0 AMSL (5.90 mbgl)
11	Topography of Mine	:	Area represents a small undulating flat land.
12	Explosive Requirement	:	42 kg slurry explosive
13	Diesel/Fuel requirement	:	8 liter/day

**Production Details :**

Year	Production of stone (Tonnes)	Production of stone (Cum)	Waste Generation (CuM)	Bench RL in Meters
1 <sup>st</sup>	127500.83	51000.33	21406.86	38 mRL – 26 mRL
2 <sup>nd</sup>	127496.86	50998.74	2684.14	26 mRL - 14 mRL
3 <sup>rd</sup>	127495.70	50998.28	19297.87	38 mRL – 26 mRL
4 <sup>th</sup>	127508.05	51003.22	2684.38	26 mRL - 14 mRL
5 <sup>th</sup>	127501.63	51000.65	2684.24	32 mRL - 14 mRL
<b>Total</b>	<b>637503.07</b>	<b>255001.22</b>	<b>48757.49</b>	

**Land Use**

Pattern of Utilization	Existing (Ha)	Plan period (Ha)	Conceptual stage (Ha)
Excavation	Nil	1.426	1.426 (0.990 ha area shall be left as water reservoir for rain water harvesting and 0.436 ha will be backfilled)
Waste Dump	1.526	Nil	Nil
Road	0.005	Nil (within quarry)	Nil (within quarry)
Infrastructure	0.009	(comes under quarry)	(comes under quarry)

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Plantation (Green Belt)	Nil	0.467 (within safety zone)	0.467 (within safety zone)
Unused Area	0.353	0.000	0.000
<b>Total</b>	<b>1.893</b>	<b>1.893</b>	<b>1.893</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development

S.No.	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.467 ha	1170
2	Haul /Approach Road	:	0.37 km	370

- 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 replacment, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

### Solid Waste Management

- Waste Generation will be 48757.49 cum waste (overburden & intercalated) (dump area- 1.526 ha) during the plan period. The generated waste will be dump temporarily on the southern side of the lease area & will be used in maintenance of mine road and village road.

### Water Quality Management

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

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### **Air Quality Management**

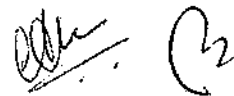
- Dust extractor or wet drilling shall be followed to control dust at source of emission during drilling.
- Sharp drill bits will be used for drilling and regrinding will be done periodically to reduce the dust generation.
- Controlled blasting to reduce dust emission and reduction in NOx emission
- 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 Sundarpahari Stone Deposit of Md. Joshim Ali, Village : Sundarpahari, Thana : Pakur(M), Distt. : Pakur, Jharkhand (1.893 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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8. Hathigarh Stone Mine of Sri Imran Ali, Village : Hathigarh, Anchal : Littipara, Thana no. : 3, Distt. : Pakur, Jharkhand (2.368 Ha).

(Proposal No. : SIA/JH/MIN/408024 /2022).

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 93<sup>rd</sup> meeting held on 18-27.02.2022 and SEIAA, Jharkhand has approved the ToRs in 94<sup>th</sup> meeting held on 13<sup>th</sup>, 14<sup>th</sup> & 15<sup>th</sup> April, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. 51, date 16.04.2022. The final EIA / EMP submitted by PP to SEIAA on 02.12.2022 and which was forwarded to SEAC on 08.12.2022.

EC Application for : Proposed Capacity- 35028.00 cu.m/annum or 98078.0 TPA

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

This is a new project which has been taken for appraisal on 21.02.2022

**PROJECT and LOCATION Details:**

Sl	Parameter	Details	
1	Project Name	: Hathigarh Stone Deposit	
2	Lessee:	: Shri Imran Ali S/O Shri Samad Ali Address- Gram-Koriadih, P.O.- Hiranpur, District- Pakur, State - Jharkhand.	
3	Lease Address	: Village - Hathigarh, Anchal- Littipara, District - Pakur, State - Jharkhand.	
4	Lease Area	: 2.368 ha	Acres-5.85 Acres
5	Type of Land	: Non Forest - Raiyati Land	
6	Project Cost	: Rs. 30 Lakhs	
7	EMP Budget	: Capital: 3.60 Lakhs	Recurring: 4.44 Lakh / year
8	CSR / CER Budget	: Rs. 0.60Lakhs	
9	New or Expansion	: New	
10	Mineable Reserves	: Cu.m.: 428080 cum	Tonnes: 1198624 tons
11	Mine Life	: 10 years 5 months	
12	Man power	: 41	
13	Water Requirement	: 10.30 KLD (Drinking: 0.41KLD, Dust Suppression:4.75 KLD, Plantation:5.1 KLD)	
14	Water Source	: From Nearby villages by tankers	
15	DG Set / power	: -	
16	Crusher	: No crusher	
17	Nearest Water Body	: Torai River, 4.80km, S direction	

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18	Nearest Habitation	:	Chaukidhab, 0.5km
19	Nearest Rail Station	:	Kotalpukur Railway station, 11.20 km
20	Nearest Air Port	:	Kazi Nazrul Islam Airport, 132.20 km
21	Nearest Forest	:	Protected Forest near Guma Pahar Village, approx. 5.50 km, NW side Protected Forest near Chhota Kendua Village, 1.5 km, ENE side
22	Road & Highways	:	NH-114A , Approx. 0.05 km

#### CO-ORDINATES


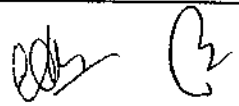

1	Latitude	From 24°43'42.62"N	To 24°43'51.75"N
2	Longitude	From 87°42'45.47"E	To 87°42'52.22"E

#### LAND DETAILS

Khata no.	Plot no.
62	938/P, 943, 944
71	960
79	961, 963
21	962

#### STATUTORY CLEARANCES

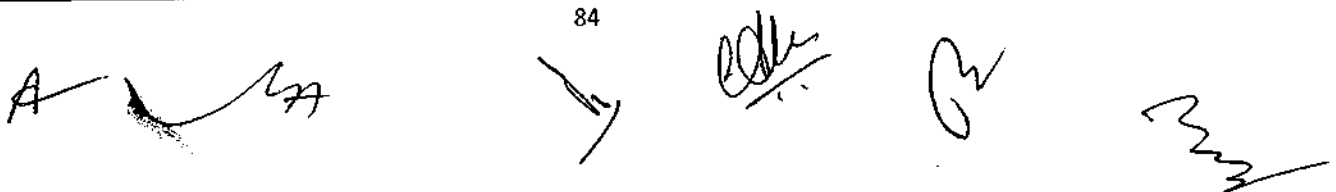
1	LOI/Lease docs	:	The LOI has been issued by District Mining Office, Pakur vide letter no. 777/M , dated 16.06.2021.
2	CO	:	The CO, Littipara vide letter no. 376/Ra, dated 06.09.2019 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Pakur vide memo no. 1711/M, dated 27.09.2021 certified that 04 other lease (2.50 acre, 5.86 acre, 7.52 acre & 3.00 acre) exist within 500 m radius from proposed project site and total area is 10 Ha.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 1026, dated 23.06.2021 certified that the proposed project site is outside of Eco Sensitive

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		Zone of Udhawa Lake Bird Sanctuary.
5	DFO Forest Distance	: DFO, Pakur Forest Division vide letter no. 524 dated 12.03.2021 certified that the distance of Reserved Forest / Protected Forest is more than 250 m from the project site.
6	DSR	: The DC-cum-District Magistrate, Pakur vide letter no 1412/M dated 12/08/2021 has informed that this project is part of District Survey Report (DSR) at Pakur district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	: BDO, Littipara vide Letter no. 781, dated 14.09.2019 informed that Gram Sabha conducted on 12.09.2019
8	Mine Plan Approval	: DMO, Pakur vide Memo no. 1824/M dated 21.10.2021.
9	Public Hearing	: JSPCB, Regional Office, Dumka vide Letter no. 1842, dated 02.11.2022 informed that the Public Hearing conducted on 30.09.2022.

**Working Details :**

1	Mining Method	: Opencast Mechanized Mining method	
2	Quarry Area	: 5 years-1.68 ha	Life of Mine - 10 Years 5 months
3	Waste Generation	: 5 years-7086.0 cu.m	
4	Stripping Ratio	: 1: 0.11	
5	Working Days	: 300	
6	Benches: size & No	: 6m x 6m	
7	Elevation of Mine	: 74 AMSL to 56 AMSL	
8	Ground Level Elevation	: 147AMSL	
9	Ultimate Working Depth	: 56 AMSL (18 m bgl)	
10	Water Table	: 48 AMSL (26 m bgl)	
11	Topography of Mine	: Area represents an almost flat land with two hillocks	
12	Explosive Requirement	: 50 kg slurry explosive	
13	Diesel/Fuel requirement	: 8 liter/day	



## Production Details

Year	Production of stone (Tonnes)	Production of stone (Cum)	Waste Generation (CuM)	Bench Amsl in Meters
1 <sup>st</sup>	97888.00	34960.00	3961.00	74mRL - 68mRL
2 <sup>nd</sup>	97961.00	34986.00	3125.00	74 mRL - 68 mRL
3 <sup>rd</sup>	98067.00	35024.00	Nil	68mRL - 62mRL
4 <sup>th</sup>	98078.00	35028.00	Nil	68mRL - 62mRL
5 <sup>th</sup>	97902.00	34965.00	Nil	68mRL - 56mRL
<b>Total</b>	<b>489896.00</b>	<b>174963.00</b>	<b>7086.00</b>	

## Land Use

Pattern of Utilization	Existing (Ha)	Plan period(Ha)	Conceptual stage (Ha)
Quarry	-	0.85	1.68 ha (Entire area will be converted into water reservoir)
Haul Road	-	0.03	0.02
Proposed Crusher	-	-	-
Green belt in Safety Barrier	-	0.66	0.66
Dump with Parapet Wall & Garland Drain	-	0.23	Nil (Waste dump to be removed and backfilled)
<b>Total Area in use</b>	-	<b>1.77</b>	<b>2.36</b>
Balance Unused Area	2.368	0.598	0.008
<b>Total Applied Area</b>	<b>2.368</b>	<b>2.368</b>	<b>2.368</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development

S.No.	LOCATION	Area/Length	No of Trees
1	Safety Zone	: 0.66 ha	1650
2	Haul /Approach Road	: 0.05 km	50

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

#### Solid Waste Management

- Waste Generation will be 7086.0 cum (dump area- 0.23 ha) during the plan period. During plan period the proposed waste shall be temporarily dumped at site and used for maintenance of road.

#### Water Quality Management

- Mining is planned to above the ground water table. In case any intersection is likely, mining activities will be stopped 8m 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 is required permission should be taken from competent authority.

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

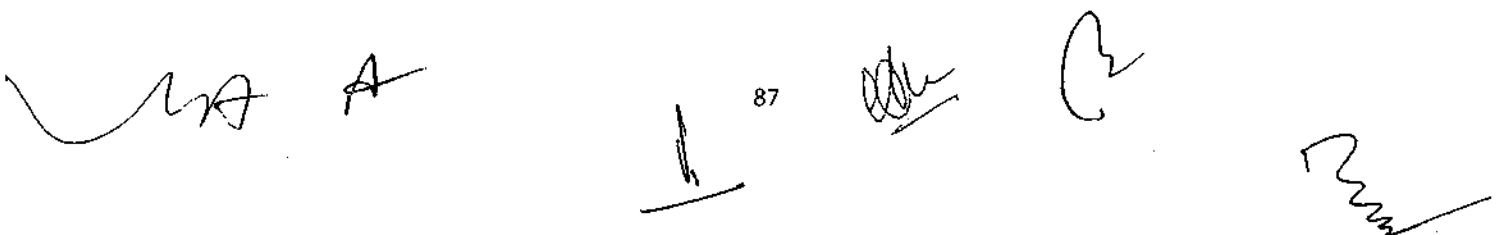
- i. Time bound action plan with budgetry provision for the issues raised during public hearing.
- ii. EMP budget to be provided separatly for each mine lease falling in the cluster.
- iii. Wind rose diagram from secondary data to be provided.

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

**Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Hathigarh Stone Mine of Sri Imran Ali, Village : Hathigarh, Anchal : Littipara, Thana no. : 3, Distt. : Pakur, Jharkhand (2.368 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.**

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9. Hathigarh Stone Mine of Sri Azizul Islam, Village : Hathigarh, Anchal : Littipara, Thana no. : 3, Distt. : Pakur, Jharkhand (2.814 Ha).

(Proposal No. : SIA/JH/ MIN/408081 /2022).

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 93<sup>rd</sup> meeting held on 18-27.02.2022 and SEIAA, Jharkhand has approved the ToRs in 94<sup>th</sup> meeting held on 13<sup>th</sup>, 14<sup>th</sup> & 15<sup>th</sup> April, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. 85, date 16.04.2022. The final EIA / EMP submitted by PP to SEIAA on 02.12.2022 and which was forwarded to SEAC on 08.12.2022.

EC Application for: Proposed Capacity- 43,272 cum/annum or 1,21,162 TPA

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

This is a new project which has been taken for appraisal on 09.12.2022

**PROJECT and LOCATION Details:**

Sl	Parameter	Details	
1	Project Name	: Hathigarh Stone Deposit	
2	Lessee:	: Shri Azizul Islam S/o Late Khan Mohammad Address- Gram- Kamalghati, P.O.- Hiranpur, District- Pakur, State - Jharkhand.	
3	Lease Address	: Village - Hathigarh, Anchal- Littipara, District - Pakur, State - Jharkhand.	
4	Lease Area	: 2.814 ha	Acres-6.95 Acres
5	Type of Land	: Non Forest - Raiyati Land	
6	Project Cost	: Rs. 35 Lakhs	
7	EMP Budget	: Capital: 9.85 Lakhs	Recurring: 5.74 Lakh / year
8	CSR / CER Budget	: Rs. 0.70Lakhs	
9	New or Expansion	: New	
10	Mineable Reserves	: Cu.m.: 475603 cum	Tonnes: 1331688 tons
11	Mine Life	: 11 years	
12	Man power	: 41	
13	Water Requirement	: 12.80 KLD (Drinking: 0.41KLD, Dust Suppression:6.40 KLD, Plantation:5.94 KLD)	
14	Water Source	: From Nearby villages by tankers	
15	DG Set / power	: -	
16	Crusher	: No crusher	
17	Nearest Water Body	: Torai River, 4.80km, S direction	

18	Nearest Habitation	:	Hathigarh, 0.3 km
19	Nearest Rail Station	:	Kotalpukur Railway station, 11.80 km , E direction
20	Nearest Air Port	:	Kazi Nazrul Islam Airport, 131.80 km, S direction
21	Nearest Forest	:	Protected Forest near Guma Pahar Village, approx. 5.50 km, NW side Protected Forest near Chhota Kendua Village, 1.5 km, ENE side
22	Road & Highways	:	NH-114A , Approx. 0.30 km, ESE direction

**CO-ORDINATES :**

1	Latitude	From 24°43'40.47"N	To 24°43'49.44"N
2	Longitude	From 87°42'21.99"E	To 87°42'30.58"E

**LAND DETAILS :**

KHATA NO.	PLOT NO.
88/Ka	909
61	910, 1077, 1079
39	911, 912
26	1052
86	1053
74	1078

**STATUTORY CLEARANCES**

1	LOI/Lease docs	:	The LOI has been issued by District Mining Office, Pakur vide letter no. 1081/M, dated 07.07.2021.
2	CO	:	The CO, Littipara vide letter no. 382/Ra, dated 07.09.2019 has mentioned the plot no. of the project is not recorded as "Jangal Jhari" in R.S. Khatiyon & Register II.
3	DMO	:	DMO, Pakur vide memo no. 1712/M, dated 27.09.2021 certified that 04 other lease (2.50 acre, 3.00 acre, 7.52 acre & 5.86 acre) exist within 500 m radius from proposed project site and total area is 10.45 Ha.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 1881, dated 01.11.2021 certified that the proposed project site is outside of Eco Sensitive

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		Zone of Udhawa Lake Bird Sanctuary.
5	DFO Forest Distance	: DFO, Pakur Forest Division vide letter no. 748, dated 06.05.2021 certified that the distance of reserved / protected forest is more than 250 m from the project site.
6	DSR	: The DC-cum-District Magistrate, Pakur vide letter no 1412/M dated 12/08/2021 has informed that this project is part of District Survey Report (DSR) at Pakur district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	: BDO, Littipara vide Letter no. 780, dated 14.09.2019 informed that Gram Sabha conducted on 12.09.2019
8	Mine Plan Approval	: DMO, Pakur vide Memo no. 1826/M dated 21.10.2021.
9	Public Hearing	: JSPCB, Regional Office, Dumka vide Letter no. 1842, dated 02.11.2022 informed that the Public Hearing conducted on 30.09.2022.

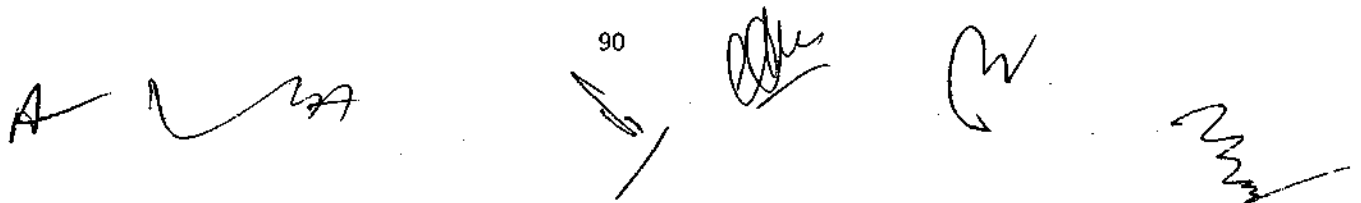
#### Working Details

1	Mining Method	: Opencast Mechanized Mining method
2	Quarry Area	: 5 years-1.84 ha      Life of Mine - 2.13 ha
3	Waste Generation	: 5 years-19093.0 cu.m
4	Stripping Ratio	: 1: 0.02
5	Working Days	: 300
6	Benches: size & No	: 6m x 6m
7	Elevation of Mine	: 95 AMSL to 77 AMSL
8	Ground Level Elevation	: 98 AMSL
9	Ultimate Working Depth	: 77 AMSL (21 m bgl)
10	Water Table	: 72 AMSL (26 m bgl)
11	Topography of Mine	: Area represents an almost flat land with two hillocks
12	Explosive Requirement	: 50 kg slurry explosive
13	Diesel/Fuel requirement	: 9 liter/day

#### Production Details

Year	Production of Stone in Tonnes	Production of stone in cum	Waste (tones)	Waste(cum)
1st	121027	43224	22863	15242

90



2nd	121162	43272	5777	3851
3rd	121136	43263	00	00
4th	121097	43249	00	00
5th	121044	43230	00	00
<b>Total</b>	<b>605466</b>	<b>216238</b>	<b>28640</b>	<b>19093</b>

#### Land Use

Pattern of Utilization	Existing (Ha)	Plan period(Ha)	Conceptual stage (Ha)
Quarry	-	1.84	2.13(Entire area will be converted into water reservoir)
Haul Road	0.00	0.04	0.03
Proposed Crusher			
Safety Zone Plantation	-	0.65	0.65
Dump with Parapet wall & Garland Drain	-	0.21	-
<b>Total Area in use</b>	<b>0.00</b>	<b>2.74</b>	<b>2.810</b>
<b>Unused Area</b>	<b>2.814</b>	<b>0.07</b>	<b>0.004</b>
<b>Total Applied Area</b>	<b>2.814</b>	<b>2.814</b>	<b>2.814</b>

### ENVIRONMENT MANAGEMENT

#### Green Belt Development

S.No.	Location	Area/Length	No of Trees
1	Safety Zone	: 0.65 ha	1630
2	Haul /Approach Road	: 0.35 km	350

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

#### Solid Waste Management

- Waste Generation will be 19093.0 cum (dump area- 0.21 ha in plan period) during the plan period. During Plan period gritty soil removed will be dumped at Southern part of the area

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with suitable precautions like parapet wall and garland drain. The small quantity of the removed gritty soil would also be used for road dressing and plantation. At conceptual period dump will be removed & will be used for backfilling.

### Water Quality Management

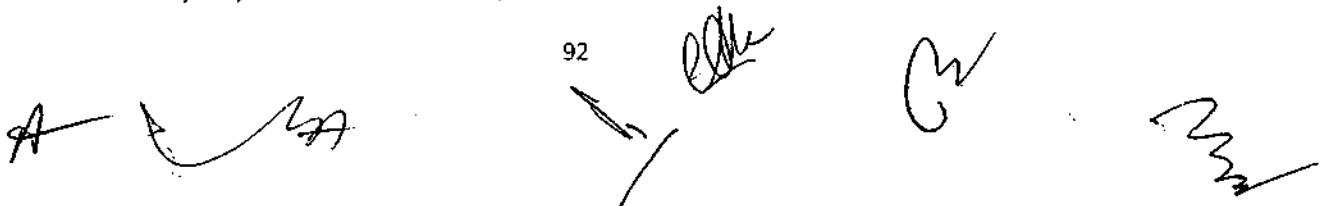
- Mining is planned to above the ground water table. In case any intersection is likely, mining activities will be stopped 5m above the Ground Water Table.
- The rain water during rainy season will be collected in a pit and shall be use for dust suppression and plantation. Excess water, if any shall 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.

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

- i. Time bound action plan with budgetry provision for the issues raised during public hearing.
- ii. EMP budget to be provided separatly for each mine lease falling in the cluster.
- iii. Wind rose diagram from secondary data to be provided.

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

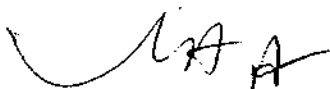
Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Hathigarh Stone Mine of Sri Azizul Islam, Village : Hathigarh, Anchal : Littipara, Thana no. : 3, Distt. : Pakur, Jharkhand (2.814 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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**10. Khaprajola Stone Mine of M/s Mahira Stone Works, Village : Khaprajola, Tehsil : Pakur, Distt. : Pakur, Jharkhand (2.83 Ha).**

**(Proposal No. : SIA/JH/MIN/407977 /2022).**

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 93<sup>rd</sup> meeting held on 18-27.02.2022 and SEIAA, Jharkhand has approved the ToRs in 94<sup>th</sup> meeting held on 13<sup>th</sup>, 14<sup>th</sup> & 15<sup>th</sup> April, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. 42, date 16.04.2022. The final EIA / EMP submitted by PP to SEIAA on 02.12.2022 and which was forwarded to SEAC on 08.12.2022.





	SH-7, Approx. 5.50 km. in SE direction.
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**CO-ORDINATES**

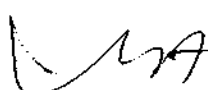




1	Latitude	From 24°35'36.72"N	To 24°35'37.94"N
2	Longitude	From 87°50'48.82"E	To 87°50'43.44"E

**LAND DETAILS :**

Khata no.	Plot no.
13	818
15	814, 815, 816, 819, 820, 821, 824/P
17	825, 826/P, 827, 828, 829/P & 830/P
20	817, 822, 823

**STATUTORY CLEARANCES**

1	LOI/Lease docs	:	The LOI has been issued by District Mining Office, Pakur vide letter no. 1812/M dated 29.09.2020.
2	CO	:	The CO, Pakur vide letter no. 169/Ra, dated 28.02.2020 has mentioned the plot no. of the project is not recorded as "Jangal Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Pakur vide memo no. 2026/M, dated 26.11.2021 certified that there are four other leases (5.42 acre, 8.19 acre, 11.80 acre & 7.94 acre) within 500 m radius and total lease area is 16.32 ha.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 976, dated 22-05-2020 certified that the proposed project site is outside of Eco Sensitive Zone of Udhawa Lake Bird Sanctuary.
5	DFO Forest Distance	:	DFO, Pakur Forest Division vide letter no. 883, dated 30.05.2020 certified that the distance of forest is more than 250 m from proposed project site.
6	DSR	:	Project name is mentioned in District Survey report (DSR) Pakur.
7	Gram Sabha	:	BDO, Pakur vide Letter no. 956/वि०, dated 18.05.2020 informed that Gram Sabha conducted on 17.03.2020
8	Mine Plan Approval	:	Additional Director, Geology, Hazaribag vide letter no. 244/G,

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		dated 07.12.2020.
9	Public Hearing	: JSPCB, Regional Office, Dumka vide Letter no. 1844, dated 02.11.2022 informed that the Public Hearing conducted on 22.09.2022.

### Working Details

1	Mining Method	: Opencast Mechanized Mining method
2	Quarry Area	: 5 years-1.10 ha      Life of Mine - 1.20 ha
3	Waste Generation	: 5 years- 11975.00 cu.m
4	Stripping Ratio	: 1: 0.07
5	Working Days	: 300
6	Benches: size & No	: 6m x 6m
7	Elevation of Mine	: 47 AMSL to 48 AMSL
8	Ground Level Elevation	: 47 AMSL
9	Ultimate Working Depth	: 23 AMSL (24 mbgl)
10	Water Table	: 15 AMSL (32 mbgl)
11	Topography of Mine	: Area represents an undulating topography.
12	Explosive Requirement	: 46 kg slurry explosive
13	Diesel/Fuel requirement	: 8 liter/day

### Production Details :

Year	Production of stone (Tonnes)	Production of stone (Cum)	Waste Generation (CuM)	Bench Amsl in Meters
1 <sup>st</sup>	107551	38411	4968	47 mRL - 41 mRL
2 <sup>nd</sup>	108041	38586	4095	47 mRL - 41 mRL
3 <sup>rd</sup>	108024	38580	2912	47 mRL - 41 mRL
4 <sup>th</sup>	108184	38637	-	41 mRL - 35 mRL
5 <sup>th</sup>	108058	38592	-	41 mRL - 35 mRL
<b>Total</b>	<b>539858</b>	<b>192806</b>	<b>11975</b>	

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## Land Use

Pattern of Utilization	Existing (Ha)	Plan period (Ha)	Conceptual stage (Ha)
Quarry	Nil	1.10 (including road)	1.2 ( will be converted in water reservoir)
Proposed Dump with parapet wall & garland drain	Nil	0.01	Nil
Safety Zone Plantation	Nil	0.93	0.93
<b>Total</b>	Nil	<b>2.04</b>	<b>2.13</b>
<b>Unused Area</b>	<b>2.83</b>	<b>0.09</b>	<b>0.70</b>
<b>Total leasehold area</b>	<b>2.83</b>	<b>2.83</b>	<b>2.83</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development

S.No.	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.930 ha	2330
2	Haul /Approach Road	:	0.22 km	220

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

### Solid Waste Management

- Waste Generation will be 11,975 cum (dump area- 0.01 ha) during the plan period. During Plan period gritty soil removed will be dumped at western part of the area with suitable precautions like parapet wall and garland drain. Some quantity of this soil will be used for road dressing and plantation.



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

During the presentation the following documents were sought :

- i. Time bound action plan with budgetry provision for the issues raised during public hearing.
- ii. EMP budget to be provided separatly for each mine lease falling in the cluster.
- iii. Wind rose diagram from secondary data to be provided.

The Project Authorities have submitted the above mentioned documents.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Khaprajola Stone Mine of M/s Mahira Stone Works, Village : Khaprajola, Tehsil : Pakur, Distt. : Pakur, Jharkhand (2.83 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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11. Bara Bhumri Stone Mine of M/s Shiva Minerals (Prop. : Sri Ujjawal Kumar Singh), Village : Bara Bhumri, P.S. : Potka, Distt. : East Singhbhum, Jharkhand (3.74 Ha).

(Proposal No. : SIA/JH/MIN/408242 /2022)

Name of the consultant: P & M Solution, Noida

This is a new project which has been taken for appraisal on 09.12.2022

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 37628.55 cum/annum or 94071.38 TPA



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**CO-ORDINATES**

1	Latitude	From 22°37'57.99" N	To 22°38'03.04" N
2	Longitude	From 86°12'18.46" E	To 86°12'27.41" E

**LAND DETAILS :**

Khata No.	Plot No.
208	1080 (P)

**STATUTORY CLEARANCES :**

1	LOI/Lease docs	: The Letter of Intent (LoI) has been issued by Director of Mines, Deptt. of Mines & Geology, Govt. of Jharkhand vide letter no. Kha. Ni (Nilami)-64/2022 – 1482, dated 15.07.2022.
2	CO	: The CO, Potka, East Singhbhum vide letter no. : 716, dated 05.11.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatyan & Register II.
3	DMO	: DMO, East Singhbhum, Jamshedpur vide letter no. 901/Khanan, dated 09.11.2022 certified that no other mining lease exists within 500 m radius from proposed project site.
4	DFO Wild Life	: DFO, Dalma Elephant Project vide letter no. : 1673, dated 23.11.2022 certified that the proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary. The additional comments given by the DFO, Dalma Elephant Project is not appropriate.
5	DFO Forest Distance	: DFO, Jamshedpur Forest Division vide letter no. : 2702, dated 09.11.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	: The project is already mentioned in page no. 25 of District Survey Report (DSR) of District East Singhbhum.
7	Gram Sabha	: BDO, Potka vide Letter no. 1772, dated 18.11.2022 informed that Gram Sabha conducted on 01.11.2022.
8	Mine Plan Approval	: Additional Director, Geology, Hazaribag vide memo no. 129/G, dated 18.07.2022.



## Working Details

1	Mining Method	:	Opencast semi mechanized Mining method
2	Quarry Area	:	5 years-2.947 ha      Life of Mine - 3.265 ha
3	Waste Generation	:	5 years- 9896.18 cum or 24740.45 tons
4	Stripping Ratio	:	1: 0.01
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	150 AMSL to 164 AMSL
8	Ground Level Elevation	:	164 AMSL
9	Ultimate Working Depth	:	125 AMSL
10	Water Table	:	118 AMSL (20mbgl)
11	Topography of Mine	:	Area represents hillock of dolerite
12	Explosive Requirement	:	8kg/day
13	Diesel/Fuel requirement	:	90 litre/day

## Production Details

Year	Production of stone (cum)	Production of stone (tons)	Total Waste (cum)	Bench RL in Meters
1 <sup>st</sup>	37628.55	94071.38	1980.45	131mRL - 137mRL
2 <sup>nd</sup>	37590.08	93975.19	1978.43	131mRL - 137mRL
3 <sup>rd</sup>	37628.55	94071.38	1980.45	131mRL - 137mRL
4 <sup>th</sup>	37551.60	93879.00	1976.40	125mRL - 131mRL
5 <sup>th</sup>	37628.55	94071.38	1980.45	125mRL - 131mRL
<b>Total</b>	<b>188027.325</b>	<b>470068.31</b>	<b>9896.18</b>	

## Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Quarry	2.947	2.947	3.265 (0.214 ha area shall be backfilled, 2.187 ha left as water reservoir & 0.864 ha area shall

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			be dead benches)
Road	0.002	0.002	0.002
Waste Dump	---	0.318	Nil (Waste Dump to be removed and backfilled)
Infrastructure	---	---	---
Safety Zone Plantation & Nala Barrier	0.311	0.473	0.473
<b>Total</b>	<b>3.26</b>	<b>3.74</b>	<b>3.74</b>
Balanced Area	0.480	---	---
<b>Total Applied Area</b>	<b>3.74</b>	<b>3.74</b>	<b>3.74</b>

### ENVIRONMENT MANAGEMENT

#### Green Belt Development

S. No.	Location	Area/Length	No. of Trees
1	Safety Zone	: 0.473 ha	1180
2	Along Approach Road	0.640 km	640

About 1500 plants will be distributed in village areas like School premises, Aangawadi, Panchayat Bhavan and other places. Therefore, total number of Plantation will be 1080 no. of plants.

Year	Area for Greenbelt in Hectare/saplings	Plantation along both sides of Approach road	No. of plants in buffer zone consulting local authorities	Location
1 <sup>st</sup> Year	0.473 ha/ 1180 plants	640	1500	Approach road -640 nos - along both sides of approach road at spacing of 2 m. 1500 nos. In village area
2 <sup>nd</sup> Year	Care / Protection of Plants			
3 <sup>rd</sup> Year				
4 <sup>th</sup> Year				
5 <sup>th</sup> Year				

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Year				like School premises, Aangawadi, Panchayat Bhavan and other places
Total	1180	640	1500	
Total	3320			

- 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 9896.18 cum or 24740.45 tons waste during the plan period will be generated which shall be temporarily dumped in the Southern part of the lease area with average height of 3.5 m and it will cover 0.318 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 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

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- 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

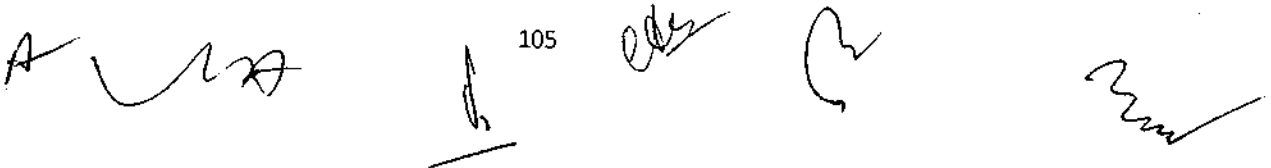
**Undertaking submitted affirming:**

- 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 Bara Bhumri Stone Mine of M/s Shiva Minerals (Prop. : Sri Ujjawal Kumar Singh), Village : Bara Bhumri, P.S. : Potka, Distt. : East Singhbhum, Jharkhand (3.74 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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12. Puregara Stone Deposit of M/s Jay Sokha Baba Stone Works, Village : Puregara, Block : Ranka, Distt. : Garhwa, Jharkhand (2.428 Ha).

(Proposal No. : SIA/JH/MIN/ 407525 /2022)

Name of the consultant: P & M Solution, Noida

This is a new project which has been taken for appraisal on 09.12.2022

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 55,555.50 cum/annum or 149999.85 TPA

**Project and Location Details :**

Sl	Parameter	Details
1	Project Name	: Puregara Stone Deposit
2	Lessee:	: M/s Jay Sokha Baba Stone Works Partners- 1. Sri Vivek Kumar Singh, SP Kothi Road, near Sinchai Colony, Abadganj, District- Palamu, Jharkhand 2. Sri Amit Kumar Singh, Village- Kotarbas, P.O. + P.S- Lesliganj, District- Palamu, Jharkhand 3. Sri Rana Pankaj Singh, Village- Belahat, P.S- Kandi, District- Garhwa, Jharkhand
3	Lease Address	: Village – Puregara, Block - Ranka , District – Garhwa, State - Jharkhand
4	Lease Area	: 2.428 ha      Acres- 6.00 Acres
5	Type of Land	: Non Forest – Raiyati Land
6	Project Cost	: Rs. 60 Lakhs
7	EMP Budget	: Capital: 7.09 Lakhs      Recurring: 3.27 Lakh / year
8	CSR / CER Budget	: Rs. 1.20 Lakhs
9	New or Expansion	: New
10	Mineable Reserves	: Cu.m.: 555700.0 cum      Tonnes: 1500390.0 tons
11	Mine Life	: 10.0 years
12	Man power	: 21
13	Water Requirement	: 7.50 KLD(Drinking: 0.21 KLD, Dust Suppression: 3.07 KLD, Plantation: 4.04 KLD)
14	Water Source	: From Nearby villages by tankers
15	DG Set / power	: NA
16	Crusher	: There is No Crusher.
17	Nearest Water Body	: Lilbatwa Nadi, Approx 1.80 km towards N direction of mine site. Daldaliya Nadi, Approx 4.50 km towards E direction of mine site. Kanarlewa Nadi ,Approx 4.50 km towards SE direction of mine site.

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18	Nearest Habitation	:	Puregara, 0.80 km
19	Nearest Rail Station	:	Garhwa Railway station, approx. 26.20 km towards N direction.
20	Nearest Air Port	:	Birsa Munda Airport, approx. 170.50 km towards SE direction.
21	Nearest Forest	:	Siswa Protected Forest , approx 1.80 km towards ENE direction of mine site. Some Patches of Siswa PF are approx. 2.50 km in SE direction Ulka Pahar Protected Forest, Approx. 4.50 km towards SW direction of mine site. Protected Forest near Mugdah, Approx. 4.80 km towards West direction of mine site.
22	Road & Highways	:	NH- 343, Approx. 6.70 km in West direction

#### CO-ORDINATES

1	Latitude	From 23°56'14.83"N	To 23°56'20.34"N
2	Longitude	From 83°49'26.51" E	To 83°49'35.00" E

#### LAND DETAILS :

Khata No.	Plot No.
38 (Old)	263 & 265 (Old)
115 (New)	931 (New)

#### STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (Lol) has been issued by DMO, Garhwa vide letter no. 1040/M, dated 19.07.2022.
2	CO	:	The CO, Ranka vide letter no. : 416, dated 18.10.2021 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in Khatiyen.
3	DMO	:	DMO, Garhwa vide memo no. 1305/M, dated 29.09.2022 certified that no other mining lease exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	Deputy Director, Palamau Tiger Project, North Division, Medininagar vide letter no. : 123, dated 23.02.2022 certified that

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		the proposed project site is outside of Eco Sensitive Zone.
5	DFO Forest Distance	: DFO, Garhwa South Forest Division vide letter no. : 2915, dated 03.12.2021 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	: The DC – cum – District Magistrate, Garhwa vide letter no. 1427/M, dated 16.11.2022 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 08.12.2021.
8	Mine Plan Approval	: District Mining Office, Garhwa vide letter no. 1306, dated 30.09.2022.

### Working Details

1	Mining Method	: Opencast other than fully mechanized (OTFM) method
2	Quarry Area	: 5 years– 1.190 ha      Life of Mine – 1.397 ha
3	Waste Generation	: 5 years– 12950.0 cum or 34965.0 tons
4	Stripping Ratio	: 1: 0.04
5	Working Days	: 300
6	Benches: size & No	: 2.5m x 3.0m
7	Elevation of Mine	: 345 AMSL to 347 AMSL
8	Ground Level Elevation	: 345 AMSL
9	Ultimate Working Depth	: 316 AMSL (29mbgl )
10	Water Table	: 315 AMSL (30mbgl)
11	Topography of Mine	: Area represents hillock of Stone
12	Explosive Requirement	: 1kg/day
13	Diesel/Fuel requirement	: 90 litre/day

### Production Details

Year	Production of stone (Tonnes)	Production of stone (Cum)	Waste Generation (CuM)	Bench RL in Meters
1 <sup>st</sup>	149999.85	55555.50	8775.0	340mRL - 346mRL
2 <sup>nd</sup>	149999.50	55555.00	1925.0	334mRL - 340mRL

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3 <sup>rd</sup>	149999.85	55555.50	750.0	334mRL - 340mRL
4 <sup>th</sup>	149999.50	55555.00	750.0	334mRL - 340mRL
5 <sup>th</sup>	149999.50	55555.00	750.0	334mRL - 340mRL
<b>Total</b>	<b>749995.20</b>	<b>277776.00</b>	<b>12950.0</b>	

#### Land Use

Type of Land Use	Existing (ha)	At the end of plan period (Ha.)	At Conceptual period (Ha.)
Excavation	--	1.190	1.838 ha (1.397 ha area shall be left as water reservoir for rain water harvesting and 0.441 ha area for dead bench plantation)
Road	--	0.04	--
Waste Dump	--	0.30	--
Infrastructure	--	--	--
Plantation (Green Belt)	--	0.59 (Within Safety Zone)	0.59 (Within Safety Zone)
<b>Total Area Used</b>	--	<b>2.12</b>	<b>2.428</b>
Unused Land	2.428	0.308	--
<b>Total Lease Hold Area</b>	<b>2.428</b>	<b>2.428</b>	<b>2.428</b>

#### ENVIRONMENT MANAGEMENT

##### Green Belt Development

S. No.	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.590 ha	1470
2	Haul /Approach Road	:	0.02 km	50

- Afforestation will be done along the barrier zone. Plantation will also be done along both sides of approach road. 500 no. of trees will also be planted in buffer zone consulting local authorities. Therefore, total number of Plantation will be 2020 no. of plants.
- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine

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as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

### **Solid Waste Management**

- Waste Generation will be 12950.0 cum or 34965.0 tons during the plan period. Part of the OB shall be used in making and maintenance of haul road and village road, and part of the waste shall be temporary dump in the eastern 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



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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 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 Puregara Stone Deposit of M/s Jay Sokha Baba Stone Works, Village : Puregara, Block : Ranka, Distt. : Garhwa, Jharkhand (2.428 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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13. Karhadih Stone Deposit of Md. Kaushar Alam, Village : Karhadih, Thana : Jamua, Distt. : Giridih, Jharkhand (2.21 Ha).

(Proposal No. : SIA/JH/MIN/ 407965/2022)

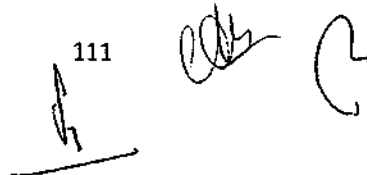
Name of the consultant: P & M Solution, Noida

This is a new project which has been taken for appraisal on 09.12.2022

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 52280.0 cum/ annum or 141156.0 TPA









**LAND DETAILS :**

Khata No.	Plot No.
02	516 (P)
27	521 (P)

**STATUTORY CLEARANCES :**

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Giridih vide letter no. 1003/M, dated 29.10.2022.
2	CO	:	The CO, Jamua (Giridih) vide letter no. : 475, dated 13.06.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in Khatian.
3	DMO	:	DMO, Giridih vide memo no. 1032/M, dated 10.11.2022 certified that 02 other mining lease (1.47 acre & 1.5525 acre) exists within 500 m radius from proposed project site and total area is 8.4875 acre (less than 5 ha) .
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. : 1664, dated 26.08.2022 certified that the proposed project site is outside of Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Giridih West Forest Division vide letter no. : 670, dated 05.07.2022 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. 1054/M, dated 14.11.2022 has informed that this project is part of District Survey Report (DSR) of Giridih district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	Gram Sabha conducted on 21.10.2022.
8	Mine Plan Approval	:	Additional Director, Geology, Hazaribag vide memo no. 365/G, dated 30.10.2022

**Working Details**

1	Mining Method	:	Open Cast Semi-Mechanized method
2	Quarry Area	:	5 years–0.768ha      Life of Mine – 1.711 ha

3	Waste Generation	:	5 years- 5067 cu.m
4	Stripping Ratio	:	0:02
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	350 AMSL to 348 AMSL
8	Ground Level Elevation	:	348 AMSL
9	Ultimate Working Depth	:	320 AMSL
10	Water Table	:	300 AMSL (20mbgl)
11	Topography of Mine	:	Area represents undulating topography land.
12	Explosive Requirement	:	20kg/day
13	Diesel/Fuel requirement	:	90 litre/day

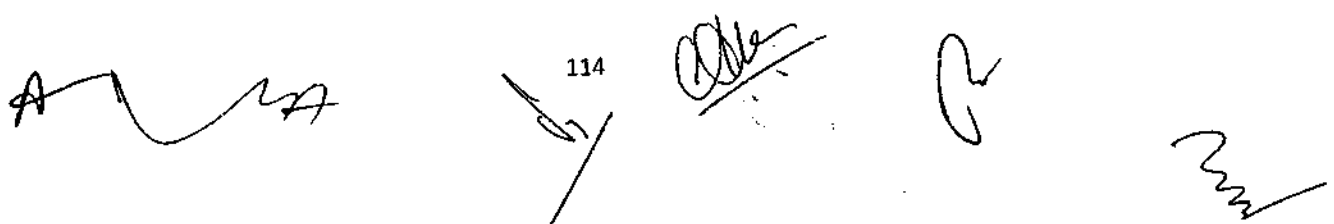
### Production Details

Year	Production of Stone in in (cum)	Production of Stone in in (Tons)	Bench RL in Meters
1 <sup>st</sup>	50000.00	135000.00	350mRL - 344mRL
2 <sup>nd</sup>	51111.11	138000.00	344mRL - 338mRL
3 <sup>rd</sup>	52280.00	141156.00	338mRL - 332mRL
4 <sup>th</sup>	52280.00	141156.00	332mRL - 326mRL
5 <sup>th</sup>	52280.00	141156.00	326mRL - 320mRL
<b>Total</b>	<b>257951.11</b>	<b>696468.00</b>	

### Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Quarry	-	0.768	1.711 ha (1.359 ha area shall be left as water reservoir for rain water harvesting, 0.352 ha area shall be dead bench plantation)
Road	0.006	0.003	0.003
Infra structure	-	-	-
Plantation (Greenbelt)	-	0.496	0.496
<b>Total</b>	<b>0.006</b>	<b>1.267</b>	<b>2.21</b>
<b>Balance</b>	<b>2.204</b>	<b>0.943</b>	-
<b>Lease Hold Area</b>	<b>2.21</b>	<b>2.21</b>	<b>2.21</b>

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## ENVIRONMENT MANAGEMENT

### Green Belt Development

S. No.	Location		Area/Length	No of Trees
1	Safety Zone	:	0.496 ha	1000
2	Along Approach Road		1.10 km	1000

- 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 5067.0 cum or 13680.9 tons waste during the plan period will be generated which will be used in making and maintenance of haul road and village road, so there is no requirement of waste dumping Plan for this mining plan period.

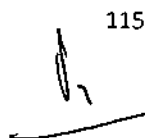
### Water Quality Management

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

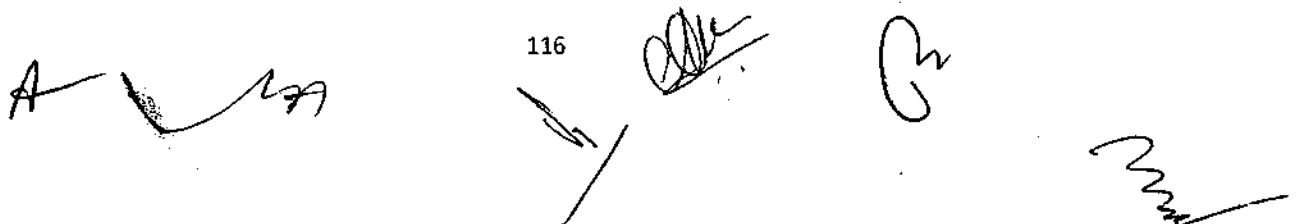
**Undertaking submitted affirming:**

- 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 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 Karhadih Stone Deposit of Md. Kaushar Alam, Village : Karhadih, Thana : Jamua, Distt. : Giridih, Jharkhand (2.21 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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The bottom of the page features several handwritten signatures and initials. On the left, there is a signature that appears to be 'A' followed by a flourish. In the center, there is a signature that looks like 'S' with a diagonal line through it. To the right of that, there is a signature that looks like 'S' with a flourish. Further right, there is a signature that looks like 'B'. On the far right, there is a signature that looks like 'M' with a flourish.

14. Akduara Stone Deposit of M/s Shiv Shakti Stone, Village : Akduara, Thana : Margomunda, Distt. : Deoghar, Jharkhand (2.09 Ha).

(Proposal No. : SIA/JH/MIN/ 407717/2022)

Name of the consultant: P & M Solution, Noida

This is a new project which has been taken for appraisal on 09.12.2022

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 53522.22 cu.m/annum or 144510.0 TPA

**Project and Location Details :**

Sl	Parameter	Details
1	Project Name	: Akduara Stone Deposit
2	Lessee:	: M/S SHIV SHAKTI STONE (Partners) 1. Smt. Munni Devi, W/O Sri Satyavan Kumar Mandal, Village- Harila, P.S.- Budhai, District- Deoghar, Jharkhand 2. Sri Pradeep Tuddu, S/O Sri Anil Tuddu, Village- Akduara, P.S+P.O- Margomunda, District- Deoghar, Jharkhand 3. Smt. Gudiya Devi, W/O Sri Sanjay Mandal, Village- Suggapahari, P.S+P.O- Margomunda, District- Deoghar, Jharkhand
3	Lease Address	: Village – Akduara, Thana- Margomunda, District – Deoghar, Jharkhand
4	Lease Area	: 2.09 ha ~ ~ Acres- 5.16 Acres
5	Type of Land	: Non Forest – Raiyati Land
6	Project Cost	: Rs. 40 Lakhs
7	EMP Budget	: Capital: 4.54 Lakhs Recurring: 3.77 Lakh / year
8	CSR / CER Budget	: Rs. 0.80 Lakhs
9	New or Expansion	: New
10	Mineable Reserves	: Cu.m.: 535220.0 cum Tonnes: 1445094.0 tons
11	Mine Life	: 10.09 or 10 years
12	Man power	: 20
13	Water Requirement	: 6.60 KLD(Drinking: 0.20 KLD, Dust Suppression: 3.06 KLD, Plantation: 3.34 KLD)
14	Water Source	: From Nearby villages by tankers
15	DG Set / power	: -
16	Crusher	: There is No Crusher.
17	Nearest Water	: Dilia Nadi, Approx. 4.60 km towards North direction of mine site

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	Body	:	Jainti River, Approx. 0.90 km towards East direction of mine site
18	Nearest Habitation	:	Akduara, 0.40 km
19	Nearest Rail Station	:	Madhupur Railway station, approx. 8.90 km toward NE direction.
20	Nearest Air Port	:	Deoghar Airport, approx. 29.0 km towards NE direction.
21	Nearest Forest	:	Protected Forest near Tikopahari, Approx. 2.30 km towards South direction of mine site. Protected Forest near Nayadih, Approx. 4.60 km towards NW direction of mine site Protected Forest near Chikhiya, Approx. 4.80 km towards West direction of mine site Protected Forest near Puridah, Approx. 3.80 km towards South direction of mine site
22	Road & Highways	:	NH-114A, Approx. 9.10 km. in NE direction.

### CO-ORDINATES

1	Latitude	From 24°12'19.92"N	To 24°12'25.66"N
2	Longitude	From 86°35'16.14"E	To 86°35'24.13"E

### LAND DETAILS :

Plot No.
740 (P), 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 796, 797, 798, 799, 800 & 801

### STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Deoghar vide letter no. 1157/M, dated 22.10.2022.
2	CO	:	The CO, Margomunda vide letter no. : 214/Ra, dated 19.09.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Deoghar vide memo no. 1259/M, dated 19.11.2022 certified that 01 other mining lease (3.00 acre) exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. : 2037, dated 14.10.2022 certified that the proposed project site is outside of Eco Sensitive

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		Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Forest Distance	: DFO, Deoghar Forest Division vide letter no. : 817, dated 16.06.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	: The DC – cum – District Magistrate, Deoghar vide letter no. 1283/M, dated 26.11.2022 has informed that this project is part of District Survey Report (DSR) of Deoghar district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	: BDO, Margomunda vide Letter no. 617/वि०, dated 21.09.2022 informed that Gram Sabha conducted on 12.09.2022.
8	Mine Plan Approval	: Additional Director, Geology, Hazaribag vide memo no. 335/G, dated 27.10.2022.

#### Working Details

1	Mining Method	: Opencast semi mechanized method
2	Quarry Area	: 5 years– 1.135ha Life of Mine – 1.571 ha
3	Waste Generation	: 5 years– 6052.0 cum or 16340.4 tons
4	Stripping Ratio	: 1: 0.04
5	Working Days	: 300
6	Benches: size & No	: 6m x 6m
7	Elevation of Mine	: 243 AMSL to 245 AMSL
8	Ground Level Elevation	: 245 AMSL
9	Ultimate Working Depth	: 215 AMSL
10	Water Table	: 205 AMSL (20mbgl)
11	Topography of Mine	: Area represents an undulating topography
12	Explosive Requirement	: 2kg/day
13	Diesel/Fuel requirement	: 90 litre/day

#### Production Details

Year	Production of stone (Tonnes)	Production of stone (Cum)	Waste Generation (CuM)	Bench RL in Meters
1 <sup>st</sup>	136500.00	50555.56	6052.0	239mRL - 245mRL

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2 <sup>nd</sup>	139500.00	51666.67	-	233mRL - 239mRL
3 <sup>rd</sup>	144510.00	53522.22	-	227mRL - 233mRL
4 <sup>th</sup>	144510.00	53522.22	-	221mRL - 227mRL
5 <sup>th</sup>	144510.00	53522.22	-	215mRL - 221mRL
<b>Total</b>	<b>709530.00</b>	<b>262788.89</b>	<b>6052.0</b>	

#### Land Use

Pattern of Utilization	Existing (Ha)	During Plan Period (ha)	After Life of Mine (ha)
Quarry	--	1.135	1.571 (1.167 ha for rain water harvesting & 0.404 ha plantation)
Road	0.008	0.003	0.003
Safety Zone Plantation	--	0.516	0.516
<b>Total area in use</b>	<b>0.008</b>	<b>1.654</b>	<b>2.09</b>
Unused Area	2.082	0.436	--
<b>Lease hold area</b>	<b>2.09</b>	<b>2.09</b>	<b>2.09</b>

#### ENVIRONMENT MANAGEMENT

##### Green Belt Development

S. No.	LOCATION	Area/Length	No of Trees
1	Safety Zone	: 0.516 ha	1290
2	Haul /Approach Road	: 0.08 km	80

- Afforestation will be done along the barrier zone. Plantation will also be done along both sides of approach road. 300 no. of trees will also be planted in buffer zone consulting local authorities. Therefore, total number of Plantation will be 1670 no. of plants.
- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

*(Handwritten signatures and initials)*

### **Solid Waste Management**

- Waste Generation will be 6052.0 cum or 16340.4 tons during the plan period which will be used for maintenance of Haul Road.

### **Water Quality Management**

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

### **Air Quality Management**

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

### **Undertaking submitted affirming:**

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



- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
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- 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 Akduara Stone Deposit of M/s Shiv Shakti Stone, Village : Akduara, Thana : Margomunda, Distt. : Deoghar, Jharkhand (2.09 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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Day 4 : December 10<sup>th</sup> , 2022 [Saturday]

**A. Deputy Commissioner -cum- District Magistrate, Palamu, Medininagar or through authorized representative and M/s Sathi Planners Pvt. Ltd., Ranchi.**

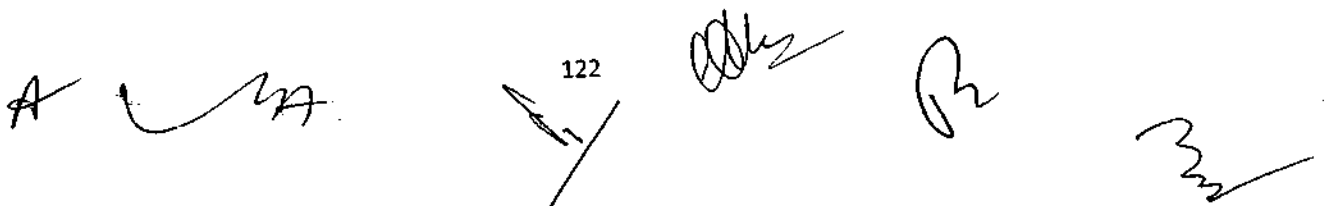
**i. Draft District Survey Report (DSR) of Sand, Palamu, Medininagar**

The DSR was submitted by Deputy Commissioner -cum- District Magistrate, Palamu, Medininagar. He was represented by District Mining Officer, Palamu Sri Anand Kumar at the SEAC meeting on 10.12.2022.

During the meeting the consultant Sathi Planners Pvt. Ltd., Ranchi submitted as follows :

1. The DSR submitted was at a draft stage. The final DSR after approval by Sub Divisional Committee, Deputy Commissioner and incorporation of the Public comments is to be submitted for appraisal by SEAC.

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2. The final DSR should be signed by all members of the Sub Divisional Committee and the Consultant involved in the preparation of the same. All pages of the DSR should be signed by the authorized officer of the DC / Sub Divisional Committee.
3. The draft DSR submitted is based only on part survey. In the submitted draft DSR the complete area of the river / rivers have not been surveyed, only some selected ghats / leases have been surveyed. The complete potential area should be demarcated before proposing the sand leases / ghats as per EMGSM guideline 2020.
4. The field survey of pre-monsoon period is to be included in final DSR.
5. The DSR should be placed in the public domain for atleast 01 (One) month from the date of publication of the advertisement for obtaining comments of the public. The comments received shall be placed before the concerned Sub Divisional Committee for consideration. The final DSR should be submitted to SEIAA, after incorporation of all replies of the comments received from the public.
6. Demand and supply of the river bed material through market survey needs to be carried out. In addition to this, future demand for the next five years also needs to be considered to justify the number & area of the sand ghat to be included in the final DSR.
7. The sand ghats / leases have not to be proposed on the confluence / meanders / concavities / active channels of the river.
8. The Khata & Khasra (class / nature of land including "Jungle Jhari") of the lease area should be certified by the concerned Circle Officer (CO) and to be incorporated in the final DSR.
9. The distance of sand leases / ghats from the Forest / Wildlife Protected area / Birds Sanctuary / Wildlife Sanctuary / National Park / Eco Sensitive Zone should be verified and certified by the concerned DFO's of the respective Territorial and Wildlife division.
10. The undertaking regarding presence of aquatic animal in the river in proximity of the proposed sand ghats should be verified and certified by concerned Govt. Departments like Zoological Survey of India.
11. The proposed leases / ghats should meet all the siting criteria of State Pollution Control Board / SEIAA.
12. Clear and high resolution color satellite images of the proposed potential sand mining area should be submitted with final DSR including the date of photographs / Geocoded location. Details of all such satellite imageries should be included in the final DSR.
13. The table of estimation of sand resources after pre-monsoon and post monsoon survey should be included in the final DSR.
14. All primary & secondary data should be supported with relevant references and documentary evidences in the final DSR.
15. Bulk density and specific gravity of the sand should be certified by NABL accredited laboratory.
16. Concave side of the river should be avoided for identification of sand leases / ghats.
17. KML files of Existing leases / ghats and proposed leases / ghats should be provided.



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18. Cluster and contiguous cluster formation should be followed as per EMGSM guidelines, 2020.
19. Average length and width of the river should be included and mining should be restricted to 3/4th of the river width and mining should be restricted within 60% of the mineable reserve.
20. Transportation routes should be defined for the proposed mining sites and duly certified from the competent Authorities.
21. All the annexures given in the EMGSM guidelines, 2020 should be filled and included in the final DSR.
22. Point no. 9.3 of the EMGSM guidelines, 2020 regarding monitoring of mining near inter-district or inter-state boundary should be addressed in the final DSR, if applicable.
23. In addition to above any other applicable criteria as required under SSMG, 2016 & EMGSM guidelines, 2020 should be included in the final DSR.
24. The presentation of the final DSR at the time of appraisal by SEAC should cover all the points of SSMG, 2016 & EMGSM guidelines, 2020.

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

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

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**B. Deputy Commissioner -cum- District Magistrate, Latehar or through authorized representative and M/s Sathi Planners Pvt. Ltd., Ranchi.**

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

The DSR was submitted by Deputy Commissioner -cum- District Magistrate, Latehar. He was represented by District Mining Officer, Palamu / Latehar Sri Anand Kumar at the SEAC meeting on 10.12.2022.

During the meeting the consultant Sathi Planners Pvt. Ltd., Ranchi submitted as follows :

1. The DSR submitted was at a draft stage. The final DSR after approval by Sub Divisional Committee, Deputy Commissioner and incorporation of the Public comments is to be submitted for appraisal by SEAC.



124



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4. The field survey of pre-monsoon period is to be included in final DSR.
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6. Demand and supply of the river bed material through market survey needs to be carried out. In addition to this, future demand for the next five years also needs to be considered to justify the number & area of the sand ghat to be included in the final DSR.
7. The sand ghats / leases have not to be proposed on the confluence / meanders / concavities / active channels of the river.
8. The Khata & Khasra (class / nature of land including "Jungle Jhari") of the lease area should be certified by the concerned Circle Officer (CO) and to be incorporated in the final DSR.
9. The distance of sand leases / ghats from the Forest / Wildlife Protected area / Birds Sanctuary / Wildlife Sanctuary / National Park / Eco Sensitive Zone should be verified and certified by the concerned DFO's of the respective Territorial and Wildlife division.
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23. In addition to above any other applicable criteria as required under SSMG, 2016 & EMGSM guidelines, 2020 should be included in the final DSR.
24. The presentation of the final DSR at the time of appraisal by SEAC should cover all the points of SSMG, 2016 & EMGSM guidelines, 2020.

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

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

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### C. Consideration of Proposals :

1. P & M Hi-Tech City Centre Mall of M/s P & M Infrastructures Pvt. Ltd. at Mauza : Jugsalai, Tehsil : Dhalbhum, Dist. : East Singhbhum, Jharkhand.

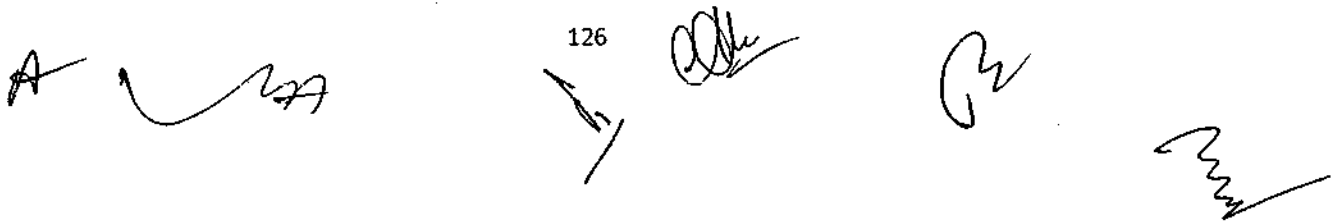
(Proposal No : SIA/JH/MIS /281936/2022).

Name of the consultant : Crystal Consultnats, Ranchi

This is a case of violation which has been taken for reappraisal on 10.12.2022

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

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

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

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

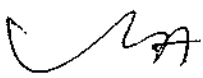


**Project Category: 8 (a) Category B2 – (at par with B1 being violation case)**

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

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

**Salient Features of the Project :**

Particular	Details		
Project Name	P & M Hi-Tech City Centre Mall		
Proponent	P & M Infrastructure Pvt. Ltd. P & M Hitech City Centre Mall, 3rd Floor, Bistupur, Jamshedpur – 831001 (Jharkhand)		
Type of Building	Commercial Building		
Latitude	22°47'06.09" N		
Longitude	86°10'43.95" E		
Khata No.	2		
Plot No.	952 (P)	966 (P)	973 (P)
Mauza	Jugsalai		
Tehsil	Dhalbhum		
District	East Singhbhum		
State	Jharkhand		
Plot Area	12625.033 m <sup>2</sup> (as per sale deed i.e. 3.12 Acres)		

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Project Cost	Rs. 66,09,44,046.00	
<b>AT PRESENT</b>		
Tree Cover	Plantation on Ground : 835.27 m <sup>2</sup>	
Ground Coverage	7145.77 m <sup>2</sup> (56.60 %)	
Permissible FAR	3.00	
Consumed FAR	2.72	
Height	42 m (from Ground Level)	
Total Built-Up Area & its break - up	51990.00 m <sup>2</sup>	
	<b>Floor</b>	<b>Total Proposed Built-Up Area (m<sup>2</sup>)</b>
	Basement First Floor	7472.20
	Basement Floor	7248.28
	Ground Floor	7155.67
	First Floor	7732.50
	Second Floor	7431.71
	Third Floor	7427.45
	Fourth Floor	1577.38
	Fifth Floor	990.80
	Sixth Floor	990.80
	Seventh Floor	990.80
	Eighth Floor	990.80
	Ninth Floor	990.80
Tenth Floor	990.80	
<b>TOTAL</b>	<b>51990.00</b>	
No. of Floor	2 Basement + G+10	
No. of Building Block	1	
Parking	4 Wheeler : 330 2 Wheeler : 345 Area for Parking : 10256.04 m <sup>2</sup>	
Population	4951	

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<b>Municipal Solid Waste</b>	<p>As per calculation;</p> <p><b>2,970.6 Kg /Day</b></p> <p>Bio-Degradable :1782.36 Kg/Day  Non-Bio-Degradable : 1188.24 Kg/Day</p> <p>Recyclable : 712.95 Kg/Day</p> <p>Non-Recyclable : 427.76 Kg</p> <p>E-waste : 11.88 Kg/Day</p> <p>Hazardous Waste : 35.65 Kg/Day</p> <p><b>NOTE : On actual, the generation of MSW varies from 11000-20000 Kg / Month depending upon the volume of business. Which is handed over to the JUSCO after segregation.</b></p>
<b>Power Requirement</b>	<p>1050 KVA</p> <p>Source – Tata Power Supply</p>
<b>Power Back-up</b>	<p>1250 KVA</p>
<b>Fresh Water Demand</b>	<p>58.36 KLD</p> <p>Source : JUSCO Water Supply System</p>
<b>Treated Water Demand</b>	<p>80.89 KLD</p>
<b>Total Water Demand</b>	<p>139.25 KLD</p>
<b>Volume of Waste Water</b>	<p>101.11 KLD</p>
<b>Capacity of STP</b>	<p>130 KLD</p>
<b>Volume of Treated Water</b>	<p>80.89 KLD</p> <p>Flushing : 54.42 KLD + Dust Suppression : 10 KLD + Horticulture : 5 KLD + Discharge : 11.47 KLD</p>
<b>Rain Water Harvesting Pit</b>	<p>2 Pits</p>
<b>As EC Proposal</b>	

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Plantation	Greenbelt on Ground (6.62 %)	: 835.27 m <sup>2</sup>
	Green cover on 4th Floor (10.52 %)	: 1328.19 m <sup>2</sup>
	Green cover on 10th Floor (3.98 %)	: 502.10 m <sup>2</sup>
	<b>Total Plantation (21.11 %)</b>	<b>: 2665.56 m<sup>2</sup></b>
Ground Coverage	7145.77 m <sup>2</sup> (56.60 %)	
Permissible FAR	3.00	
Consumed FAR	2.72	
Height	42 m (from Ground Level)	
Total Built-Up Area & its break – up	51990.00 m <sup>2</sup>	
	Floor	Total Proposed Built-Up Area (m <sup>2</sup> )
	Basement First Floor	7472.20
	Basement Floor	7248.28
	Ground Floor	7155.67
	First Floor	7732.50
	Second Floor	7431.71
	Third Floor	7427.45
	Fourth Floor	1577.38
	Fifth Floor	990.80
	Sixth Floor	990.80
	Seventh Floor	990.80
	Eighth Floor	990.80
	Ninth Floor	990.80
Tenth Floor	990.80	
<b>TOTAL</b>	<b>51990.00</b>	
No. of Floor	2 Basement + G+10	
No. of Building Block	1	
No. of Tenement	259	
Parking	4 Wheeler : 330 2 Wheeler : 345 Area for Parking : 10256.04 m <sup>2</sup>	
Population	5050	

	Particulars	Details	Population
	Shop on Ground (Staff)		205
	Shop on Ground (Visitor)	6124.97 m <sup>2</sup>	1837
	Shop above Ground (Staff)		173
	Shop above Ground (Visitor)	10361.97 m <sup>2</sup>	1554
	Restaurant	2989.9 m <sup>2</sup>	299
	Food Court	1538.56 m <sup>2</sup>	256
	Office including Canteen	3077.11 m <sup>2</sup>	308
	Hotel	(110 Bed + 25 Staff)	135
	Cinema	1700 m <sup>2</sup>	283
	<b>Total</b>		<b>5050</b>
<b>Municipal Solid Waste</b>	<b>3030.00 Kg / Day</b> Bio-Degradable : 1818.00 Kg/Day Non-Bio-Degradable : 1212.00 Kg/Day  <i>Recyclable : 727.20 Kg/Day</i> <i>Non-Recyclable : 436.32 Kg</i>  <i>E-waste : 12.12 Kg/Day</i> <i>Hazardous Waste : 36.36 Kg/Day</i>		
<b>Power Requirement</b>	1800 KVA <i>Source – Tata Power Supply</i>		
<b>Power Back-up</b>	1250 KVA		
<b>Fresh Water Demand</b>	70.51 KLD <i>Source : JUSCO Water Supply System</i>		
<b>Treated Water Demand</b>	88.50 KLD		
<b>Total Water Demand</b>	156.01 KLD		
<b>Volume of Waste Water</b>	116.91 KLD		
<b>Capacity of STP</b>	130.00 KLD		

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<b>Volume of Treated Water</b>	93.53 KLD <i>Flushing : 60.50 KLD + Dust Suppression : 5 KLD + Horticulture : 20 KLD + Discharge : 8.03 KLD</i>
<b>Rain Water Harvesting Pit</b>	4 Pits

**CALCULATION DETAILS FOR INFLUX GENERATED**

Particulars	Details	Norms for Population	Population
Shop on Ground (Staff)	6124.97	Person / 3 sq.m.	205
Shop on Ground (Visitor)			1837
Shop above Ground (Staff)	10361.97	Person / 6 sq.m.	173
Shop above Ground (Visitor)			1554
Restaurant	2989.9	Person / 10 sq. m.	299
Food Court	1538.56	Person / 6 sq.m.	256
Office including Canteen	3077.11	Person / 10 sq. m.	308
Hotel	(110 Bed + 25 Staff)		135
Cinema	1700	Person / 6 sq.m.	283
<b>Total</b>			<b>5050</b>

**Calculation Details For Water Demand**

Particulars	As per Norms Water Demand (LD)		As per Calculation Water Demand (KLD)		
	Domestic	Flushing	Domestic	Flushing	Total
Shop on Ground (Staff)	25	20	5.13	4.10	9.23
Shop on Ground (Visitor)	5	10	9.18	18.37	27.55
Shop above Ground (Staff)	25	20	4.32	3.45	7.77
Shop above Ground (Visitor)	5	10	7.77	15.54	23.31
Restaurant	55	15	16.44	4.48	20.93
Food Court	25	10	6.41	2.56	8.97
Office including Canteen	25	10	7.69	3.08	10.77
Hotel	90	45	12.15	6.08	18.23
Cinema	5	10	1.42	2.83	4.25
<b>TOTAL</b>			<b>70.51</b>	<b>60.50</b>	<b>131.01</b>

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**CALCULATION DETAILS FOR WATER & WASTE WATER**

	Fresh Water	Treated Water
Domestic	70.51	0
Flushing	0	60.50
Horticulture	0	20.00
Dust Suppression	0	5
<b>Sub-Total</b>	<b>70.51</b>	<b>85.50</b>
<b>Total</b>	<b>156.01</b>	
Waste Water	56.41	60.50
<b>Total Waste Water</b>	<b>116.91</b>	
STP	<b>130</b>	
<b>Treated Water</b>	<b>93.53</b>	
Flushing	60.5	
Horticulture	20	
Dust Suppression	5	
<b>Sub - Total</b>	<b>85.50</b>	
<i>Discharge</i>	<i>8.03</i>	
<b>Total</b>	<b>93.53</b>	

**CALCULATION DETAILS FOR SOLID WASTE MANAGEMENT**

Municipal Solid Waste @0.6Kg per Person	3030.00	
Bio-degradable (60% of MSW)	1818.00	
Non-Biodegradable (40% of MSW)	1212.00	
	Hazardous Waste @3% of Non- Biodegradable Waste	36.36
	E-Waste @ 1% of Non-Biodegradable Waste	12.12
	Recyclable @60% of Non- Biodegradable Waste	727.20
	Non Recyclable @36% of Non- Biodegradable Waste	436.32



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## STATUTORY CLEARANCE

- Project Proponent procure the land as sub-lease from Tata Steel Ltd. dated 27/08/2007.
- Building Plan Approved by Jharkhand State Certified Area Committee vide Building Permit Number : 27259, Dated : 02/01/2008 for Basement + Lower Ground + Ground + 8 Floor.
- When the procession of the land was taken by PP. There were several heaps of ash dump and also many ditches within the Project Site. The PP started leveling the ground and also moving away the ash dump.
- By the time the site was levelled. The PP was advised by the TSL that not to carry out any activity on project site leading to change in land use.
- The TSL as a follow up to the directive of the Deputy Commissioner, East Singhbhum vide his Letter No. 394 dated 21/09/2012 advise the Proponent vide their Letter No. Land/4237 dated : 22/09/2012 to stop activities leading to change in Landuse Pattern.
- The High Court of Jharkhand vide its Order on W.P. (C) No. 6138 of 2012 vacated the stay on the project on dated 23/12/2014. After this order PP started the construction work on the Project Site.
- As admitted by the proponent, the construction work was started after the order of Hon'ble Jharkhand High court dated 23/12/2014.
- Airport Authority of India issued a height clearance NOC vide its NOC ID - JAMS/EAST/B/102221/630005, dated 08/11/2021.
- Firefighting Department, Jharkhand has issued a Advisory vide its Memo No. - 4141/Tech./2021, dated 22/12/2021.
- The DFO, Dalma Elephant Project Jamshedpur Vide Letter No. 1939 Dated 13/12/2021 certified that the project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary. The additional comments given by the DFO, Dalma Elephant Project is not appropriate.
- The DFO, Jamshedpur Division vide Letter No. 3082 Dated 29/11/2021 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
- The CO, Jamshedpur vide Letter No. 2190 Dated 13/11/2021 has mentioned plot no. of the project is not recorded as "Jangle Jhari" in R.S Khatiyari & Register II.

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

On the basis of above the State Level Expert Appraisal Committee (SEAC), Jharkhand recommended an amount of rupees 1,72,56,250 as per CPCB guidelines towards remediation plan and natural & community resource augmentation plan to be spent within a period 03 years.

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The details of summary of Natural resource and Environmental / Ecological Damage assessment with budgetary provision for expenditure under the below mention head for remediation :-

Particulars	Amount (INR)
1% of the total project cost incurred up to the date of filling of application along with EIA / EMP Report (Project Cost – Rs. 66,09,44,046.00) CA Certified Project Cost Attached.	66,09,440.46
0.25 % of the total turnover during the period of violation Hence Violation period is FY 2017-2018, 2018-2019, 2019-2020, 2020-2021 & 2021-2022 (Provisional). Total Turnover : Rs. 39,24,25,592.00 Balance Sheet Attached.	9,81,063.98
<b>TOTAL</b>	<b>75,90,504.94</b>

- I. The Committee visited the project site on 08.12.2022 to verify the details submitted by PAs. During inspection, Committee saw that the STP is installed and is operational, RWH has been installed with 02 no. of pits, dedicated solid waste handling site was in place and green belt has been developed. Fly ash dump site was existing before initiation of the project. It has been stabilized by development of green belt & green cover on the entire fly ash dump site and has improved aesthetic of the area.
- II. Total budgetary provision with respect to remediation plan and natural and community resource augmentation plan is Rs. 1,72,56,250.
- III. Therefore, PAs shall be required to submit a bank guarantee of an amount of Rs. 1,72,56,250 towards remediation plan and natural and community resource augmentation plan with the Jharkhand State Pollution Control Board and evidence of the same submitted to SEIAA, Jharkhand prior to grant of EC.
- IV. The bank guarantee shall be released after successful completion of remediation plan, duly recommended by the SEAC, Regional Office - MoEF&CC, Govt. of India and approval of regulatory authority. Remediation plan shall be completed in 03 years with the consultation of Local / Urban Bodies / State Govt. Deptt.
- V. Approval / permission from CGWA shall be obtained before drawing ground water for the project activities, if applicable. Jharkhand State Pollution Control Board shall not issue Consent to Operate (CTO) until the PAs obtains such permission.
- VI. PAs shall take necessary other clearances / permissions under various act and rules if any, from the respective authorities / departments.

- VII. STP of adequate capacity shall be established within the project premises.
- VIII. Energy conservation measures adhering to part of-ECBC norms shall be complied with.
- IX. The penalty of Rupees 75,90,504.94 being 1% of the project cost (Rs. 66,09,44,046) and 0.25% of the total revenue generated (Rs. 39,24,25,592) shall be submitted to Jharkhand State Pollution Control Board in the form of demand draft and evidence of the same to be submitted to SEIAA, Jharkhand prior to grant of EC.
- X. Action will be taken for the violation by the Jharkhand State Pollution Control Board under the provision of section 19 the Environment (Protection) Act, 1986.

**Based on the presentation made and information provided, the Committee decided that the proposal for P & M Hi-Tech City Centre Mall of M/s P & M Infrastructures Pvt. Ltd. at Mauza : Jugsalai, Tehsil : Dhalbhum, Dist. : East Singhbhum, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – V 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 (upto 20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.
- IV. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load. It is to be achieved by solar panels etc meeting ECBC norms.
- V. Trees should be developed & maintained not less than 15% of project area.
- VI. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.
- VII. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- VIII. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.
- IX. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- X. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.
- XI. Sufficient number of EV fast charging points to be installed.

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

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

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

This is a new project which has been taken for reappraisal on 10.12.2022.

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

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

**Detailed Area Statement**

S. No.	Particulars	Total (Area in sqm)
1.	Total Plot Area	6,672.66
2.	Permissible Ground Coverage (@35% of plot area)	2,335.43
3.	Proposed Ground Coverage (@33.48 % of plot area)	2,234.03
4.	Permissible FAR	21,018.88
	• Permissible FAR (@3 of the plot area)	20,017.98
	• IGBC (05% of the permissible FAR)	1,000.90
5.	Proposed FAR	20,982.6
9.	Non-FAR	9,974.95
10.	Built up Area	30,957.55
11.	Landscape Area (21.08% of plot area)	1,400
12.	Height of building	28.5 m
13.	Project cost	Rs 41.5 Crores
14.	RWH pits	05

**LAND DETAILS :**

Khata No.	Plot No.
91	115
336	112

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➤ WATER REQUIREMENT

During operation phase, the source of water supply will be Ranchi Municipal Corporation. The total water requirement is approx. 87 KLD, out of which total domestic water requirement is 81 KLD. The fresh water requirement is approx. 61 KLD.

➤ POWER REQUIREMENT

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

Details of D.G Sets

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

➤ CONNECTIVITY

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

Calculations for Daily Water Demand

S. No.	Description	No. of DUs/Area (m <sup>2</sup> )	Occupancy	Rate of water demand (lpcd)		Total Water Requirement (KLD)		
				Fresh	Flushing	Fresh	Flushing	Total
A.	Domestic Water							
	• Residents	180	900	65	21	58.5	18.9	77.4
	• Staff		45	25	20	1.125	0.9	2.025
	• Visitors		90	10	5	0.9	0.45	1.35
	<b>Total</b>					<b>60.525</b>	<b>20.25 say</b>	<b>80.775</b>
						<b>say 61</b>	<b>20</b>	<b>say 81</b>
<b>Total Domestic Water = 81 KLD</b>								
B.	Horticulture	1,400 m <sup>2</sup>		4 L/sqm		5.6 KLD say 6 KLD		
<b>Grand Total (A+B) = 87 KLD</b>								

### Waste Water Calculations

Total Domestic Water Requirement	81 KLD
• Fresh water	61 KLD
• Flushing water	20 KLD
Waste water Generated (80% of Fresh Water + 100% of Flushing Water)	48.8 + 20 = 68.8 Say 69 KLD
STP capacity	100 KLD

### Population Break-up

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

### STATUTORY CLEARANCES :

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

During the presentation the following documents were sought :

- i. Basis of calculation of water requirement for the project to be provided.
- ii. Water balance diagram to be provided.
- iii. Water requirement during the construction phase to be provided.
- iv. Building height should be corrected.
- v. Stack emission details should be revised.
- vi. One day monitoring data to be provided.
- vii. Water and ambient air quality test report should be submitted.
- viii. Proposal for handling and disposal of MSW and hazardous waste to be provided.
- ix. Site plan to be submitted showing all the facilities including green belt within the premises.
- x. Coordinates of Rain Water Harvesting pit to be provided.
- xi. Traffic survey study should be provided.
- xii. Evacuation plan to be provided.

Revised EMP incorporating all the above requirements is to be submitted for reconsideration of the proposal.

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3. Ulatu Stone Mine of M/s Bhuneshwari Crusher Stone (Prop.: Sri Dwarika Nath Choudhary),  
Village : Ulatu, Circle : Namkum, Distt. : Ranchi, Jharkhand (2.83 Ha).

(Proposal No. : SIA/JH/MIN/ 409008/2022)

Name of the consultant: P & M Solution, Noida

This is a new project which has been taken for reappraisal on 10.12.2022.

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 43910 cum/annum or 122948 TPA

**Project and Location Details :**

Sl	Parameter	Details
1	Project Name	: Ulatu Stone mine
2	Lessee:	: M/S Bhuneshwari Crusher Stone (Proprietor- Sri Dwarika Nath Choudary)
3	Lease Address	: Village – Ulatu, Circle- Namkum, District – Ranchi, Jharkhand
4	Lease Area	: 2.83 ha. Acres- 7.00 Acre
5	Type of Land	: Non Forest – Raiyati Land
6	Project Cost	: Rs. 25 Lakhs
7	EMP Budget	: Capital: 7.65 Lakhs Recurring: 3.27 Lakh / year
8	CSR / CER Budget	: Rs. 0.50 Lakhs

9	New or Expansion	:	Expansion
10	Mineable Reserves	:	Cu.m.: 263460 cum Tonnes: 737688 tons
11	Mine Life	:	6 years
12	Man power	:	33
13	Water Requirement	:	16.48 ~ 16.50 KLD(Drinking: 0.33 KLD, Dust Suppression:11.5 KLD, Plantation: 4.65 KLD)
14	Water Source	:	From Nearby villages by tankers
15	DG Set / power	:	200 KVA
16	Crusher	:	There is No Crusher.
17	Nearest Water Body	:	Rora Nadi, Approx. Approx 7.31 NE direction of mine site Sapali River, Aprox 4.7 SW direction of mine site
18	Nearest Habitation	:	Rampur, Approx. 4.94 km towards W direction.
19	Nearest Rail Station	:	Gangaghat Railway station, approx. 10.11 km towards NE direction.
20	Nearest Air Port	:	Deoghar Airport, approx. 29.0 km towards NE direction.
21	Nearest Forest	:	Harhap RF, 5.41 Km NE direction, Silwai PF, 8.80 Km NE
22	Road & Highways	:	NH-43, Approx. 3.09 km. in SW direction.

#### CO-ORDINATES

1	Latitude	From 23°16'44.05" N	To 23°16'51.87" N
2	Longitude	From 85°27'41.91" E	To 85°27'50.70" E

#### LAND DETAILS :

Khata No.	Plot No.
590	8096 (P)

#### Working Details

1	Mining Method	:	Opencast mechanized method
2	Quarry Area	:	5 years- 1.880 ha Life of Mine - 1.97 ha
3	Waste Generation	:	5 years- 6124 cum or 9186tons (Gritty Soil)
4	Stripping Ratio	:	0:00

5	Working Days	:	300
6	Benches: size & No	:	6m x 6m
7	Elevation of Mine	:	652 AMSL to 640 AMSL
8	Ground Level Elevation	:	640 AMSL
9	Ultimate Working Depth	:	616 AMSL
10	Water Table	:	598 AMSL to 595 (20mbgl)
11	Topography of Mine	:	The lease area is generally a hill track with characteristics gentle slope like topography with rock mass of Granite-Gneiss.
12	Explosive Requirement	:	60kg/day
13	Diesel/Fuel requirement	:	90 litre/day

### Production Details

Year	Production of Stone		Removal of Gritty Soil	
	Production of Stone in in (Tons)	Production of Stone in in (cum)	In Tones	In CUM
6 <sup>th</sup>	122948	43910	4191	2794
7 <sup>th</sup>	122946	43909	1440	960
8 <sup>th</sup>	122948	43910	1350	900
9 <sup>th</sup>	122946	43909	810	540
10 <sup>th</sup>	122948	43910	1395	930
<b>Total</b>	<b>614736</b>	<b>219548</b>	<b>9186</b>	<b>6124</b>

### Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan period (Ha)	Conceptual stage (Ha) (after life of mine)
Excavation	--	1.880	1.97 ha (1.68 ha area shall be left as water reservoir for rain water harvesting and 0.29 ha area shall be dead bench plantation)
Waste Dump	--	0.050	--
Road	0.02	0.003	--

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Parapet wall	-	0.003	
Garland drain	--	0.004	
Infrastructure	--	--	--
Plantation (Greenbelt)	--	0.860 (Within Safety Zone)	0.86 (Within Safety Zone)
<b>Total</b>	<b>0.02</b>	<b>2.800</b>	<b>2.83</b>
Balance	2.81	0.030	--
<b>Lease Hold Area</b>	<b>2.83</b>	<b>2.83</b>	<b>2.83</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development

S. No.	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.86 ha	2150
2	Haul /Approach Road	:	1.20 km	175

- Afforestation will be done along the barrier zone. Plantation will also be done along both sides of approach road. 2150 no. of trees will also be planted in buffer zone consulting local authorities. Therefore, total number of Plantation will be 2325 no. of plants.
- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

### Solid Waste Management

- Waste Generation will be 5 years– 6124 cum or 9186tons (Gritty Soil) during the plan period which will be removed and will be temporarily dumped at the south-eastern part of the area with suitable precautions.

### 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 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.

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

**STATUTORY CLEARANCES :**

1	LOI/Lease docs	:	This lease has been transferred to this lessee vide lease deed dated 06.01.2022, valid up to 07.02.2028. This lease was earlier granted to JMS Construction Company (Prop. : Sri Sujit Kumar), Jamshedpur Distt. East Singhbhum.
2	CO	:	The CO, Namkum (Ranchi) vide letter no. : 331 (ii), dated 03.02.2022 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. 120/M, dated 04.02.2022 certified that no other mining lease exists within 500 m radius from proposed project site .
4	DFO Wild Life	:	DFO, Wildlife Ranchi vide letter no. : 85, dated 09.02.2022 certified that the proposed project site is outside of Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Ranchi Forest Division vide letter no. : 635, dated 24.02.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The project is already mentioned in page no. 37 of District Survey Report (DSR) of District Ranchi.
7	Gram Sabha	:	BDO, Namkum, Ranchi vide Letter no. 1458 (ii), dated 11.10.2021 informed that Gram Sabha conducted on 11.10.2021.
8	Mine Plan Approval	:	DMO, Ranchi vide memo no. 269/M, dated 08.03.2022

*[Handwritten signatures and initials]*

9	Consent to Operate (CTO)	: CTO issued by JSPCB vide Ref. no. : JSPCB/RO/RNC/CTO-10717367/2021/100, dated 06.07.2021.
10	Site Inspection / Monitoring Report	: MoEF&CC, Integrated Regional Office, Ranchi vide no. : 111-10/IRO-2022/353, dated 16.06.2022. The inspection report of IRO, Ranchi MoEF&CC was presented before the Committee and time bound action plan has been provided by the lessee for those points which are either partially complied or not complied. Undertaking from the lessee has been received in this regard.

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 Ulatu Stone Mine of M/s Bhuneshwari Crusher Stone (Prop.: Sri Dwarika Nath Choudhary), Village : Ulatu, Circle : Namkum, Distt. : Ranchi, Jharkhand (2.83 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure - I.

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4. Amjhar Stone Deposit of M/s Sri Ganesh Stone, Village : Amjhar, Circle : Ganwa, Distt. : Giridih, Jharkhand (1.068 Ha).

(Proposal No. : SIA/JH/MIN/ 409041/2022)

Name of the consultant: P & M Solution, Noida

The PA's has requested for withdrawal of the proposal vide letter dated 10.12.2022 citing the reason that the mine plan for the project has to be revised. The PAs also requested to consider the scrutiny fee submitted for this proposal to be considered for the revised proposal to be submitted in due course. Since, the appraisal of this project has not been done yet by SEAC. So, the scrutiny fees of this project should not be charged for revised proposal which has to be submitted by PA's later at SEIAA.

The Committee is of the view that this project is recommended for delisting to SEIAA with intimation that the appraisal of this project has not been done by SEAC. Hence, the Committee is requesting SEIAA that the scrutiny fee deposited for this project may be adjusted for revised application and accordingly, this project proposal is recommended for delisting to SEIAA.

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5. Govindpur Stone Deposit of M/s Shiv Guru Stone, Village : Govindpur, Circle : Jamua, Distt. : Giridih, Jharkhand (1.376 Ha).

(Proposal No. : SIA/JH/MIN/ 409047/2022)

The PA's has requested for withdrawal of the proposal vide letter dated 10.12.2022 citing the reason that the mine plan for the project has to be revised. The PAs also requested to consider the scrutiny fee submitted for this proposal to be considered for the revised proposal to be submitted in due course. Since, the appraisal of this project has not been done yet by SEAC. So, the scrutiny fees of this project should not be charged for revised proposal which has to be submitted by PA's later at SEIAA.

The Committee is of the view that this project is recommended for delisting to SEIAA with intimation that the appraisal of this project has not been done by SEAC. Hence, the Committee is requesting SEIAA that the scrutiny fee deposited for this project may be adjusted for revised application and accordingly, this project proposal is recommended for delisting to SEIAA.

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6. Laharjori Stone Deposit of Partners : Sri Hiralal Mandal, Sri Shatrughan Mandal & Sri Baidyanath Kumar Yadav, Village : Laharjori, P.O. : Karanjo, P.S. : Margomunda, Distt. : Deoghar, Jharkhand (1.695 Ha).

(Proposal No. : SIA/JH/MIN/ 408866/2022)

Name of the consultant: P & M Solution, Noida

This is an expansion project which has been taken for reappraisal on 10.12.2022.

Project Category: B2 – Application for Environment Clearance (Expansion)

EC Application for: Existing Capacity - 16,704.0 cum/annum or 45100.80 TPA

After Expansion Capacity- 51,111.11 cu.m/annum or 1,38,000 TPA

The Laharjori Stone Deposit has been previously granted for Environment clearance on 14.07.2021 with production capacity 16,704.0 cum/annum or 45100.80 TPA. Now, the proposal has been applied for the Environment clearance (Expansion, Category B2) under production capacity of 51,111.11 cu.m/annum or 1,38,000 TPA within same mining lease area.

**Project and Location Details :**

Sl	Parameter	Details
1	Project Name	: Laharjori Stone Deposit

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2	Lessee:	:	Partners- Sri Hiralal Mandal, Sri Shatrughan Mandal, Sri Baidyanath Kumar Yadav At- Bhandaro, P.O+P.S- Margomunda, District- Deoghar, Jharkhand
3	Lease Address	:	Village – Laharjori, P.O- Karanjo, P.S- Margomunda, District – Deoghar, Jharkhand
4	Lease Area	:	1.695 ha      Acres- 4.19 Acres
5	Type of Land	:	Non Forest – Raiyati Land
6	Project Cost	:	Rs. 30 Lakhs
7	EMP Budget	:	Capital: 3.65 Lakhs      Recurring: 3.27 Lakh / year
8	CSR / CER Budget	:	Rs. 0.60 Lakhs
9	New or Expansion	:	Expansion
10	Mineable Reserves	:	Cu.m.: 511140.0 cum      Tonnes: 1380078.0 tons
11	Mine Life	:	10 years
12	Man power	:	23
13	Water Requirement	:	7.0 KLD(Drinking: 0.23 KLD, Dust Suppression: 4.025 KLD, Plantation: 2.80 KLD)
14	Water Source	:	From Nearby villages by tankers
15	DG Set / power	:	200KVA
16	Crusher	:	There is No Crusher.
17	Nearest Water Body	:	Jainti River, Approx. 2.90 km towards North direction of mine site
18	Nearest Habitation	:	Chamarbigha, 0.32 km
19	Nearest Rail Station	:	Madankata Railway station, approx. 6.90 km toward East direction.
20	Nearest Air Port	:	Birsa Munda Airport, approx. 162.80 km towards SW direction.
21	Nearest Forest	:	Protected Forest near Tikopahari, Approx. 4.90 km towards NW direction of mine site. Protected Forest near Bhatupur Village, Approx. 5.60 km towards SW direction of mine site
22	Road & Highways	:	NH-114A, Approx. 10.80 km. in NE direction.

#### CO-ORDINATES

1	Latitude	From 24°09'23.80"N	To 24°09'32.17"N
2	Longitude	From 86°36'05.97"E	To 86°36'11.37"E

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**LAND DETAILS :**

Khata No.	Plot No.
22	2271 (P) & 2274 (P)
68	2272 & 2273

**STATUTORY CLEARANCES :**

1	LOI/Lease docs	:	The LOI has been issued by District Mining Office, Deoghar vide letter no. 160/M dated 06.02.2021.
2	CO	:	The CO, Margomunda vide letter no. : 315/Ra, dated 26.09.2020 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar & Register II.
3	DMO	:	DMO, Deoghar vide memo no. 307/M, dated 17.03.2021 certified that no other mining lease exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Hazaribag vide letter no. : 1195, dated 08.07.2020 certified that the proposed project site is outside of Eco Sensitive Zone of Topchanchi Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Deoghar Forest Division vide letter no. : 999, dated 16.06.2020 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC-cum-District Magistrate, Deoghar vide letter no. 141/M, dated 19.02.2021 has informed that this project is part of District Survey Report (DSR) at Deoghar district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Margomunda vide Letter no. 1001/वि०, dated 24.09.2020 informed that Gram Sabha conducted on 24.08.2020.
8	Mine Plan Approval	:	Additional Director, Geology, Hazaribag vide memo no. 313/G, dated 18.10.2022.
9	Previous EC	:	EC issued by SEIAA vide letter no. : EC/SEIAA/2021-22/2345/2021 /28, dated 14.07.2021.

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10	Compliance of EC	:	The PAs requested IRO, Ranchi MoEF&CC vide letter dated 29.07.2022 to certify the compliance status of EC conditions. As no response was received from IRO, Ranchi MoEF&CC, the compliance status of the conditions of EC has been certified by Regional Officer, Dumka, Jharkhand State Pollution Control Board vide compliance report dated 02.11.2022.
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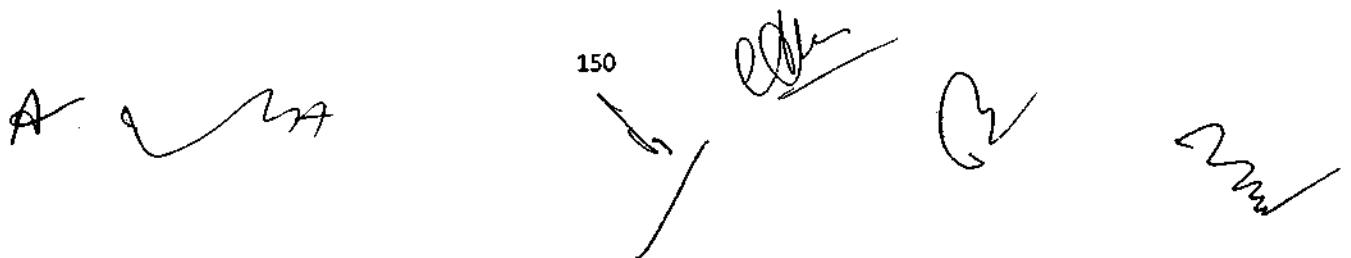
### WORKING DETAILS

1	Mining Method	:	Opencast semi mechanized method
2	Quarry Area	:	5 years- 1.295 ha      Life of Mine - 1.295 ha
3	Waste Generation	:	5 years- 7000.0 cum or 18900.0 tons
4	Stripping Ratio	:	1: 0.04
5	Working Days	:	300
6	Bench: size & No	:	6m x 6m
7	Elevation of Mine	:	240 AMSL to 248 AMSL
8	Ground Level Elevation	:	248 AMSL
9	Ultimate Working Depth	:	232 AMSL (8mbgl)
10	Water Table	:	210 AMSL (22mbgl)
11	Topography of Mine	:	Area represents a small hillock
12	Explosive Requirement	:	90Kg/day
13	Diesel/Fuel requirement	:	120 litre/day

### PRODUCTION DETAILS

Year	Production of stone (Tonnes)	Production of stone (Cum)	Waste Generation (CuM)	Bench RL in Meters
1 <sup>st</sup>	135000.00	50000.00	3220.00	244mRL - 248mRL
2 <sup>nd</sup>	136500.00	50555.56	--	238mRL - 244mRL
3 <sup>rd</sup>	138000.00	51111.11	3780.00	238mRL - 244mRL
4 <sup>th</sup>	138000.00	51111.11	--	232mRL - 238mRL
5 <sup>th</sup>	138000.00	51111.11	--	232mRL - 238mRL
<b>Total</b>	<b>685500.00</b>	<b>253888.89</b>	<b>7000.00</b>	

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## LAND USE

Pattern of Utilization	Existing (Ha)	During Plan Period (ha)	After Life of Mine (ha)
Quarry	--	1.295	1.295 (Entire area shall be left as water reservoir for rainwater harvesting)
Road	0.025	0.003 (0.022 comes under quarry)	0.003
Safety Zone Plantation	--	0.397	0.397
<b>Total area in use</b>	<b>0.025</b>	<b>1.695</b>	<b>1.695</b>
Unused Area	1.670	--	--
<b>Lease hold area</b>	<b>1.695</b>	<b>1.695</b>	<b>1.695</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development




S. No.	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.397 ha	990
2	Haul /Approach Road	:	0.340 km	340

- Afforestation will be done along the barrier zone. Plantation will also be done along both sides of approach road. 70 no. of trees will also be planted in buffer zone consulting local authorities. Therefore, total number of Plantation will be 1400 no. of plants.
- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road in two rows with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement, protection and watering shall be undertaken for the life of mine as per norms and schedule issued by PCCF, Development, Department of Forest, Environment & Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

### Solid Waste Management

- Total 7000.0 cum or 18900 tons waste during the plan period will be generated which shall be used in making and maintenance of haul road and village road, so there is no requirement of waste dumping Plan for this mining plan period.

### Water Quality Management

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- 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.

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

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Laharjori Stone Deposit of Partners : Sri Hiralal Mandal, Sri Shatrughan Mandal & Sri Baidyanath Kumar Yadav, Village : Laharjori, P.O. : Karanjo, P.S. : Margomunda, Distt. : Deoghar, Jharkhand (1.695 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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**7. Bhuska Stone Deposit Project of Sri Suresh Kumar Tanwani, Village : Bhuska, Thana : Pakur, Distt. : Pakur, Jharkhand (2.54 Ha).**

(Proposal No. SIA/JH/MIN/407898/2022).

Name of the consultant: P & M Solution, Noida

This is a new project which has been taken for reappraisal on 10.12.2022.

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 93<sup>rd</sup> meeting held on 18-27.02.2022 and SEIAA, Jharkhand has approved the ToRs in 94<sup>th</sup> meeting held on 13<sup>th</sup>, 14<sup>th</sup> & 15<sup>th</sup> April, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. 45, date 16.04.2022. The final EIA / EMP submitted by PP to SEIAA on 05.12.2022 and which was forwarded to SEAC on 08.12.2022.

**EC Application for: Proposed Capacity- 27578 cum/annum or 82734 TPA**

**Project and Location Details :**

Sl	Parameter	Details
1	Project Name	: Bhuska Stone Deposit
2	Lessee:	: M/s Sri Suresh Kumar Tanwani S/o Late Suraj Lal Tanwani At Village –Sindhipara Thana – Pakur , State – Jharkhand.

*(Handwritten signatures and marks)*

3	Lease Address	:	Village – Bhuska, Thana - Pakur, District – Pakur, State –Jharkhand.	
4	Lease Area	:	2.54 ha	Acres- 6.27Acres
5	Type of Land	:	Non Forest – Raiyati Land	
6	Project Cost	:	Rs. 30 Lakhs	
7	EMP Budget	:	Capital: 5.30 Lakhs	Recurring: 3.27 Lakh / year
8	CSR / CER Budget	:	Rs. 0.60 Lakhs	
9	New or Expansion	:	New	
10	Mineable Reserves	:	Cu.m.: 275851 cum	Tonnes: 827553 tons
11	Mine Life	:	10 years	
12	Man power	:	30	
13	Water Requirement	:	13.10 KLD (Drinking: 0.30 KLD, Dust Suppression: 5.60 KLD, Plantation: 7.20 KLD)	
14	Water Source	:	From Nearby villages by tankers	
15	DG Set / power	:	-	
16	Crusher	:	No crusher	
17	Nearest Water Body	:	Torai River, 7.50 km, NW direction	
18	Nearest Habitation	:	Bhuska, 0.40 km	
19	Nearest Rail Station	:	Pakur Railway station, approx. 4.70 km	
20	Nearest Air Port	:	Kazi Nazrul Islam Airport, Durgapur, West Bengal, approx. 123.30 km.	
21	Nearest Forest	:	Dhangora Pahar Protected Forest, Approx. 6.50 km. in W direction. Dharni Pahar Protected Forest, Approx. 7.50 km. in WSW direction. Protected Forest near Mohanpur village, Approx. 3.70 km. in SSE direction.	
22	Road & Highways	:	NH-114A, Approx. 3.50 km. in N direction. SH-7, Approx. 8.40 km. in SE direction. NH-34, Approx. 13.40 km. in NE direction.	

#### CO-ORDINATES

1	Latitude		From 24°36'20.31"N	To 24°36'27.51"N
2	Longitude		From 87°49'13.46"E	To 87°49'22.92"E

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**LAND DETAILS**

Khata no.	Plot no.
8	563, 564, 565, 566, 567, 568, 569, 570, 573, 574, 575, 576
11	843, 844, 845, 846
17	851, 854
24	650/P
26	861/P
31	856, 857, 858, 859, 860
34	850

**STATUTORY CLEARANCES**

1	LOI/Lease docs	:	The LOI has been issued by District Mining Office, Pakur vide letter no. 923/M dated 25.06.2021.
2	CO	:	The CO, Pakur vide letter no. 1885/Ra, dated 12.12.2020 has mentioned the plot no. of the project is not recorded as "Jangal Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Pakur vide memo no. 1047/M, dated 03.07.2021 certified that 03 leases (6.83 acre, 5.43 ½ acre & 7.00 acre) exist within 500 m radius and total lease is 10.33 ha.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 569, dated 17.03.2021 certified that the proposed project site is outside of Eco Sensitive Zone of Udhawa Lake Bird Sanctuary.
5	DFO Forest Distance	:	DFO, Pakur Forest Division vide letter no. 790, dated 19.05.2021 certified that the of reserved / protected forest is more than 250 m from the proposed project site.
6	DSR	:	The DC-cum-District Magistrate, Pakur vide letter no. 1412/ M, dated 12.08.2021 has informed that this project is part of District Survey Report (DSR) at Pakur district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Pakur vide Letter no. 2844/वि०, dated 03.12.2020 informed that Gram Sabha conducted on 27.11.2020
8	Mine Plan Approval	:	DMO, Pakur vide Memo no. 1454/M, dated 19.08.2021
9	Public Hearing	:	Public Hearing conducted on 23.09.2022.

### Working Details

1	Mining Method	:	Opencast Mechanized Mining method	
2	Quarry Area	:	5 years-1.07 ha	Life of Mine - 1.66 ha
3	Waste Generation	:	5 years- 6016.00 cu.m	
4	Stripping Ratio	:	1: 0.09	
5	Working Days	:	300	
6	Benches: size & No	:	6m x 6m	
7	Elevation of Mine	:	46 AMSL to 51 AMSL	
8	Ground Level Elevation	:	46 AMSL	
9	Ultimate Working Depth	:	33 AMSL (13 mbgl)	
10	Water Table	:	13 AMSL (33 m bgl)	
11	Topography of Mine	:	Area represents a flat ground with very less undulations in its topography.	
12	Explosive Requirement	:	45 kg slurry explosive	
13	Diesel/Fuel requirement	:	8 liter/day	

### Production Details :

Year	Production of stone (Tonnes)	Production of stone (Cum)	Waste Generation (CuM)	Bench Amsl in Meters
1 <sup>st</sup>	82530.0	27510.0	1974	51 mRL - 45 mRL
2 <sup>nd</sup>	82734.0	27578.0	1312	51 mRL - 45 mRL
3 <sup>rd</sup>	82410.0	27470.0	2730	51 mRL - 45 mRL
4 <sup>th</sup>	82650.0	27550.0	Nil	45 mRL - 39 mRL
5 <sup>th</sup>	82431.0	27477.0	Nil	45 mRL - 33 mRL
<b>Total</b>	<b>412755.0</b>	<b>137585.0</b>	<b>6016.00</b>	

### Land Use

Pattern of Utilization	Existing (Ha)	Plan period(Ha)	Conceptual stage (Ha)
	Nil		1.66 (0.99 ha area will be converted)

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Quarry		1.07	into water reservoir and 0.67 ha area will be left as water reservoir)
Road	0.01	0.02	Nil
Safety Zone Plantation	Nil	0.88	0.88
<b>Total</b>	<b>0.01</b>	<b>1.97</b>	<b>2.54</b>
Unused Area	2.53	0.57	0.000
<b>Total applied area</b>	<b>2.54</b>	<b>2.54</b>	<b>2.54</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development

S.No.	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.88 ha	2200
2	Haul /Approach Road	:	0.20 km	200

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

### Solid Waste Management

- Waste Generation will be 6016.00 cum during the plan period. During 1<sup>st</sup> & 2<sup>nd</sup> year gritty soil will be removed and temporarily dumped at the southern part of the area and in 3<sup>rd</sup> year, the soil will be dumped in south-western wing of the area and used for plantation & maintenance of road.

### Water Quality Management

- Mining is planned to above the ground water table. In case any intersection is likely, mining activities will be stopped 8m 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.

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- 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 Bhuska Stone Deposit Project of Sri Suresh Kumar Tanwani, Village : Bhuska, Thana : Pakur, Distt. : Pakur, Jharkhand (2.54 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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- 8. Bhuska Stone Deposit Project of Sri Dinesh Tanwani, Village : Bhuska, Thana : Pakur, Distt. : Pakur, Jharkhand (2.00 Ha).

(Proposal No. SIA/JH/MIN/407875/2022).

Name of the consultant: P & M Solution, Noida

This is a new project which has been taken for reappraisal on 10.12.2022.

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 93<sup>rd</sup> meeting held on 18-27.02.2022 and SEIAA, Jharkhand has approved the ToRs in 94<sup>th</sup> meeting held on 13<sup>th</sup>, 14<sup>th</sup> & 15<sup>th</sup> April, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. 84, date 16.04.2022. The final EIA / EMP submitted by PP to SEIAA on 05.12.2022 and which was forwarded to SEAC on 08.12.2022.

EC Application for: Proposed Capacity- 14429 cum/annum or 43288 TPA

**PROJECT and LOCATION Details:**

Sl	Parameter	Details	
1	Project Name	Bhuska Stone Deposit	
2	Lessee:	M/s Sri Dinesh Tanwani S/o Indra Kumar Tanwani Vill-Sindhipara, District- Pakur, State – Jharkhand.	
3	Lease Address	Village – Bhuska, Thana - Pakur, District – Pakur, State –Jharkhand.	
4	Lease Area	2.0 ha	Acres-4.93 Acres
5	Type of Land	Non Forest – Raiyati Land	
6	Project Cost	Rs. 25 Lakhs	
7	EMP Budget	Capital: 4.01 Lakhs	Recurring: 3.27 Lakh / year

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8	CSR / CER Budget	:	Rs. 0.50 Lakhs
9	New or Expansion	:	New
10	Mineable Reserves	:	Cu.m.: 144293 cum Tonnes: 432879 tons
11	Mine Life	:	10 years
12	Man power	:	30
13	Water Requirement	:	10.30 KLD (Drinking: 0.30 KLD, Dust Suppression:4.35 KLD, Plantation:5.64 KLD)
14	Water Source	:	From Nearby villages by tankers
15	DG Set / power	:	-
16	Crusher	:	No crusher
17	Nearest Water Body	:	Torai River, 7.50 km, NW direction
18	Nearest Habitation	:	Bhuska, 0.30 km
19	Nearest Rail Station	:	Pakur Railway station, approx. 4.70 km
20	Nearest Air Port	:	Kazi Nazrul Islam Airport, Durgapur, West Bengal, approx. 123.30 km.
21	Nearest Forest	:	Dhangora Pahar Protected Forest, Approx. 6.50 km. in W direction. Dharni Pahar Protected Forest, Approx. 7.50 km. in WSW direction. Protected Forest near Mohanpur village, Approx. 3.70 km. in SSE direction.
22	Road & Highways	:	NH-114A, Approx. 3.50 km. in N direction. SH-7, Approx. 8.40 km. in SE direction. NH-34, Approx. 13.40 km. in NE direction.

**CO-ORDINATES :**

1	Latitude	From 24°36'22.43"N	To 24°36'28.99"N
2	Longitude	From 87°49'07.95"E	To 87°49'18.09"E

**LAND DETAILS :**

Khata No.	Plot No.
34	528, 531 & 562
05	550
06	549
08	529, 530, 532, 535, 536, 537, 554, 555, 556, 557, 558, 559, 560 & 561

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### STATUTORY CLEARANCES

1	LOI/Lease docs	:	The LOI has been issued by District Mining Office, Pakur vide letter no. 1072/M dated 06.07.2021.
2	CO	:	The CO, Pakur vide letter no. 1884/Ra, dated 12.12.2020 has mentioned the plot no. of the project is not recorded as "Jangal Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Pakur vide memo no. 1145/M, dated 15.07.2021 certified that there are four other leases within 500 m radius and total lease within 500 m radius from proposed project is 12.33 ha.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 570, dated 17.03.2021 certified that the proposed project site is outside of Eco Sensitive Zone of Udhawa Lake Bird Sanctuary.
5	DFO Forest Distance	:	DFO, Pakur Forest Division vide letter no. 791, dated 19.05.2021 certified that the distance of reserved / protected forest is more than 250 m from the proposed project site.
6	DSR	:	The DC-cum-District Magistrate, Pakur vide letter no. 1412/M, dated 12.08.2021 has informed that this project is part of District Survey Report (DSR) at Pakur district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Pakur vide Letter no. 2843/वि०, dated 03.12.2020 informed that Gram Sabha conducted on 27.11.2020.
8	Mine Plan Approval	:	DMO, Pakur vide Memo no. 1453/M, dated 19.08.2021
9	Public Hearing	:	Public Hearing conducted on 23.09.2022.

### Working Details

1	Mining Method	:	Opencast Mechanized Mining method
2	Quarry Area	:	5 years-1.05 ha      Life of Mine - 1.29 ha
3	Waste Generation	:	5 years- 3671.00 cu.m
4	Stripping Ratio	:	1: 0.08
5	Working Days	:	300
6	Benches: size & No	:	6m x 6m

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7	Elevation of Mine	:	46 AMSL to 49 AMSL
8	Ground Level Elevation	:	46 AMSL
9	Ultimate Working Depth	:	37 AMSL (9 m bgl)
10	Water Table	:	13 AMSL (33 m bgl)
11	Topography of Mine	:	Area represents a very gently sloping land
12	Explosive Requirement	:	45 kg slurry explosive
13	Diesel/Fuel requirement	:	8 liter/day

**Production Details :**

Year	Production of stone (Tonnes)	Production of stone (Cum)	Waste Generation (CuM)	Bench Amsl in Meters
1 <sup>st</sup>	43288.00	14429.00	1220.00	49 mRL – 43 mRL
2 <sup>nd</sup>	43285.00	14428.00	990.00	49 mRL – 43 mRL
3 <sup>rd</sup>	43288.00	14429.00	978.00	49 mRL – 43 mRL
4 <sup>th</sup>	43285.00	14428.00	483.00	49 mRL – 37 mRL
5 <sup>th</sup>	43288.00	14429.00	Nil	43 mRL – 37 mRL
<b>Total</b>	<b>216434.00</b>	<b>72143.00</b>	<b>3671.00</b>	

**Land Use**

Pattern of Utilization	Existing (Ha)	Plan period(Ha)	Conceptual stage (Ha)
Quarry	-	1.05	1.29 (Entire area will be converted into water reservoir)
Road	0.01	-	-
Safety Zone Plantation	-	0.71	0.71
Dump	-	0.04	-
Parapet Wall	-	0.002	-
Garland Drain	-	0.003	-
<b>Total Area in use</b>	<b>0.01</b>	<b>1.805</b>	<b>2.0</b>
<b>Unused Area</b>	<b>1.99</b>	<b>0.195</b>	<b>0.000</b>

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Total Applied Area	2.0	2.0	2.0
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**ENVIRONMENT MANAGEMENT**  
**Green Belt Development**

S.No.	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.71 ha	1780
2	Haul /Approach Road	:	0.10 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**

- Waste Generation will be 3671.00 cum (dump area- 0.040 ha) during the plan period. During 1<sup>st</sup> year gritty soil will be removed and temporarily dumped at the eastern part of the area with suitable precautions like parapet wall and garland drain and in 2<sup>nd</sup>, 3<sup>rd</sup> & 4<sup>th</sup> year little amount of gritty soil will be removed and used for plantation & maintenance of road.

**Water Quality Management**

- Mining is planned to above the ground water table. In case any intersection is likely, mining activities will be stopped 8m 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.

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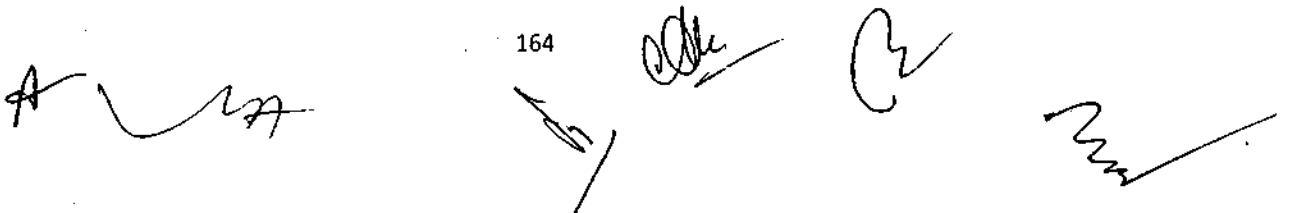
- It shall be ensured that quality of drinking water for the worker is hygienic and goodsanitation system shall be made available.

#### **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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9	New or Expansion	:	New
10	Mineable Reserves	:	Cu.m.: 200250.0 cum Tonnes: 540675.00 tons
11	Mine Life	:	10.09 or 10 years
12	Man power	:	20
13	Water Requirement	:	6.90 KLD (Drinking: 0.20 KLD, Dust Suppression: 4.23 KLD, Plantation: 2.40 KLD)
14	Water Source	:	From Nearby villages by tankers
15	DG Set / power	:	200 KVA
16	Crusher	:	There is No Crusher.
17	Nearest Water Body	:	Jainti River, Approx. 3.70 km towards NE direction of mine site Pathajor Nala, Approx. 0.18 km towards East direction of mine site
18	Nearest Habitation	:	Karhiya, 0.40 km
19	Nearest Rail Station	:	Madankata Railway station, approx. 2.60 km toward NE direction.
20	Nearest Air Port	:	Deoghar Airport, approx. 32.50 km towards North direction.
21	Nearest Forest	:	Protected Forest near Baskupi, Approx. 2.30 km towards NW direction of mine site. Open Jungle near Madankata, Approx. 3.30 km towards NE direction of mine site Bharkota Protected Forest, Approx. 1.30 km towards SE direction of mine site Open Scrub Jungle near Kuchlapahari, Approx. 3.80 km towards SE direction of mine site Open Jungle near Kendbariya, Approx. 2.60 km towards SE direction of mine site
22	Road & Highways	:	NH-114A, Approx. 10.20 km. in North direction.

#### CO-ORDINATES

1	Latitude	From 24°08'37.23"N	To 24°08'40.70"N
2	Longitude	From 86°41'21.20"E	To 86°41'25.83"E

#### LAND DETAILS :

Khata No.	Plot No.
10	761 (P) & 762

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**STATUTORY CLEARANCES :**

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Deoghar vide letter no. 1261/M, dated 19.11.2022
2	CO	:	The CO, Karon (Deoghar) vide letter no. : 437/Ra, dated 12.11.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar & Register II.
3	DMO	:	DMO, Deoghar vide memo no. 1271/M, dated 24.11.2022 certified that 01 other mining lease (3.09 acre) exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Hazaribag vide letter no. : 2139, dated 29.10.2022 certified that the proposed project site is outside of Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Deoghar Forest Division vide letter no. : 1546, dated 22.10.2022 certified that the distance of reserved / protected forest is 310 m from proposed project site.
6	DSR	:	The DC-cum-District Magistrate, Deoghar vide letter no. 1283/M, dated 26.11.2022 has informed that this project is part of District Survey Report (DSR) at Deoghar district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Karon (Deoghar) vide letter no. 939/Vi, dated 12.11.2022 informed that Gram Sabha conducted on 29.10.2022.
8	Mine Plan Approval	:	DMO, Gumla vide memo no. 1446/M, dated 09.12.2022.

**WORKING DETAILS**

1	Mining Method	:	Opencast semi mechanized method
2	Quarry Area	:	5 years-0.785 ha      Life of Mine - 0.785 ha
3	Waste Generation	:	5 years- 6750.0 cum or 18225.0 tons
4	Stripping Ratio	:	1: 0.06
5	Working Days	:	300

6	Benches: size & No	:	6m x 6m
7	Elevation of Mine	:	206 AMSL to 208 AMSL
8	Ground Level Elevation	:	206 AMSL
9	Ultimate Working Depth	:	195 AMSL
10	Water Table	:	170 AMSL (20mbgl)
11	Topography of Mine	:	Area represents an undulating topography
12	Explosive Requirement	:	70 kg/day
13	Diesel/Fuel requirement	:	110litre/day

### PRODUCTION DETAILS

Year	Production of stone (Tonnes)	Production of stone (Cum)	Waste Generation (CuM)	Bench RL in Meters
1 <sup>st</sup>	50100.00	18555.56	2030.00	201mRL - 208mRL
2 <sup>nd</sup>	52800.00	19555.56	2015.00	201mRL - 207mRL
3 <sup>rd</sup>	54066.00	20024.44	2705.00	201mRL - 206mRL
4 <sup>th</sup>	54066.00	20024.44	--	195mRL - 201mRL
5 <sup>th</sup>	54066.00	20024.44	--	195mRL - 201mRL
<b>Total</b>	<b>265098.00</b>	<b>98184.44</b>	<b>6750.00</b>	

### LAND USE

Pattern of Utilization	Existing (Ha)	During Plan Period (ha)	After Life of Mine (ha)
Quarry	--	0.785	0.785 (0.543 ha for rain water harvesting & 0.242 ha plantation)
Road	0.006	0.003	0.003
Safety Zone Plantation	--	0.342	0.342
<b>Total area in use</b>	<b>0.006</b>	<b>1.13</b>	<b>1.13</b>
Unused Area	1.124	--	--
<b>Lease hold area</b>	<b>1.13</b>	<b>1.13</b>	<b>1.13</b>

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## ENVIRONMENT MANAGEMENT

### Green Belt Development

S. No.	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.342 ha	800
2	Haul /Approach Road	:	0.420 km	400

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

#### Solid Waste Management

- Waste Generation will be 6750.0 cum or 18225.0 tons during the plan period which will be used for maintenance of Haul Road.

#### Water Quality Management

- Mining is planned to above the ground water table. In case any intersection is likely, mining activities will be stopped 2m above the Ground Water Table.
- The rain water during rainy season will be collected in a pit and shall be use for dust suppression and plantation.Excess water, if any shall be discharged in natural stream after settling of suspendedparticles in the pit. Pump having required capacity will be installed to liftaccumulated rain water from working pit and pumped to the settling tank.
- Garland drain shall be made around the Waste dump and the rain water shall becollected in garland drain and allowed to settle in a small pit for settling suspendedparticles before allowing discharge to natural drainage system. Check Pits and Retainer walls shall be constructed to prevent water flowing into the lease area from outside or from inside the lease area to the outside
- For domestic waste water Septic Tank with Soak Pit shall be provided, 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 Karhiya Stone Deposit of Partners : Sri Chouhan Marandi & Smt. Sabitri Devi, Village : Karhiya, Thana : Karon, Distt. : Deoghar, Jharkhand (1.13 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.**

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*(Handwritten signatures and initials)*



21	Nearest Forest	:	Protected Forest – 0.30 Km in South direction
22	Road & Highways	:	Pakka Road – 0.3 Km NH114/A – 2.33 km- NE

**CO-ORDINATES**

Corner Point	Longitude	Latitude
1	87°33' 29.570" E	24°11' 56.875" N
2	87°33' 31.200" E	24°11' 56.849" N
3	87°33' 33.924" E	24°11' 55.744" N
4	87°33' 37.336" E	24°11' 55.307" N
5	87°33' 36.551" E	24°11' 54.368" N
6	87°33' 34.907" E	24°11' 54.391" N
7	87°33' 33.318" E	24°11' 54.645" N
8	87°33' 32.283" E	24°11' 53.134" N
9	87°33' 31.691" E	24°11' 51.935" N
10	87°33' 31.120" E	24°11' 52.067" N
11	87°33' 30.676" E	24°11' 50.388" N
12	87°33' 29.799" E	24°11' 50.575" N
13	87°33' 30.202" E	24°11' 52.588" N
14	87°33' 29.217" E	24°11' 52.706" N
15	87°33' 29.477" E	24°11' 53.989" N
16	87°33' 29.289" E	24°11' 54.153" N
17	87°33' 30.358" E	24°11' 54.942" N
18	87°33' 30.215" E	24°11' 55.779" N
19	87°33' 29.585" E	24°11' 55.826" N

**LAND DETAILS :**

Khata No.	Plot No.
06	84
09	85
10	155

**STATUTORY CLEARANCES :**

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Dumka vide letter no. 1248/M, dated 28.07.2020.
2	CO	:	The CO, Shikaripara vide letter no. : 372/Ra, dated 04.10.2019 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyon & Register II.

3	DMO	:	DMO, Dumka vide memo no. 1186/M, dated 17.07.2020 certified that 01 other mining lease (5.00 acre) exists within 500 m radius from proposed project site and total area is 9.34 acre.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. : 1397, dated 13.08.2020 certified that the proposed project site is outside of Eco Sensitive Zone of Udhawa Lake Bird Sanctuary.
5	DFO Forest Distance	:	DFO, Dumka Forest Division vide letter no. : 3526, dated 25.10.2019 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The District Magistrate– cum –DC, Dumka vide letter no. 683/Khanan, dated 19.04.2021 has informed that this project is part of District Survey Report (DSR) of Dumka district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	Gram Sabha conducted on 03.04.2019.
8	Mine Plan Approval	:	Additional Director, Geology, Hazaribag vide letter no. 70/G, dated 01.09.2020.

#### Working Details

1	Mining Method	:	Semi Mechanised. Jack Hammer Drilling & Blasting to be used
2	Quarry Area	:	5 years–1.76 Ha      End of Mine – 1.76 Ha
3	Waste Generation	:	5 years– 28,039 Cum.      Life of Mine (Waste Gen.) – 28,039 Cum.
4	Stripping Ratio	:	1:0.05
5	Working Days	:	300
6	Benches: size & No	:	3 m x 4/5 m , Bench No.- 1 to 14 (Conceptual Period)
7	Elevation of Mine	:	Maximum Elevation – 217 AMSL Minimum Elevation – 187 AMSL
8	Ground Level Elevation	:	187 AMSL
9	Ultimate Working Depth	:	177 AMSL
10	Water Table	:	164 AMSL
11	Topography of Mine	:	Undulating Terrain
12	Explosive Requirement	:	16.50 Tons/year
13	Diesel/Fuel requirement	:	296 liters / day (88.8 KL/year)

**Production Details**

Year	Production of Stone		Over Burden (OB)	Bench RL in meters
	Cubic meters	Tons	Cubic meters	
1st Year	14,313	38,644	9,970	237-223
2nd Year	30,908	83,452	6,210	223-217
3rd Year	44,685	1,20,649	7,022	217-211
4th Year	47,243	1,27,556	4,838	211-205
5th Year	56,893	1,53,611	0	205-196
<b>Total</b>	<b>1,94,042</b>	<b>5,23,912</b>	<b>28,039</b>	<b>Depth – 41 m</b>

**Land Use**

**Existing Land Use pattern**

S.I	Category	Area in Hectares
1	Mining Area	0.00
2	Office	0.00
3	Dump	0.00
4	Road	0.00
5	Garland Drain	0.00
6	Safety Zone	0.00
7	Settling Tank	0.00
8	Unutilized	1.76
	<b>Total</b>	<b>1.76</b>

**Proposed Land Use for Current Plan Period**

SI	Category	Area in Hectares
1	Mining Area	1.10
2	Office	0.02
3	Dump	0.03
4	Mining Road	0.01
5	Garland Drain	0.60
6	Safety Zone	
7	Settling Tank	
8	Unutilized	0.00
	<b>Total</b>	<b>1.76</b>

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

SI	Category	Area in Hectares
1	Mining Area + mining Road +office	1.13

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		( Water Body)
5	Garland Drain + Safety Zone + Settling Tank+ Dump	0.63 ( Plantation)
8	Unutilized	0.00
	<b>Total</b>	<b>1.76</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development

SL	LOCATION	Area/Length	No of Trees
1	Safety Zone/Green Belt and other reclaimed area (Garland Drain, Settling Tank, Dump)	: 0.63 ha	1,575 trees @ 2500 trees per ha.
2	Haul /Approach Road	: 0.3KM	200 trees on both sides – 3 m distance

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

### Waste Generation

A total of 28,039 Cum. of wastes (Over Burden) will be generated from entire Lowapara Stone Mine up to conceptual stage. OB will be utilized for backfilling, 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 Quality Management

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

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

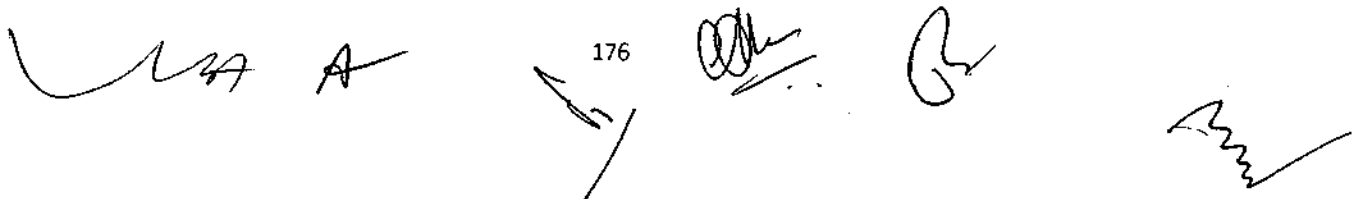
- For domestic waste water Septic Tank with Soak Pit shall be provided, discharge from Soak Pit, if any shall be used for plantation.
- It shall be ensured that quality of drinking water for the worker is hygienic and good sanitation system shall be made available.

#### **Air Quality Management**

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

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

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

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14	Water Source	: Water will be sourced from abandoned Mine through Water Tanker for Dust Suppression and Plantation. Water will be sourced from Bore Well within the lease area for Drinking and Domestic Consumption.
15	DG Set / power	: 20 KVA DG Set proposed
16	Crusher	: NA
17	Nearest Water Body	: Bansloi River 5.85 Km – North
18	Nearest Habitation	: Lakhibad Village, Dumka – 35.50 KM
19	Nearest Rail Station	: Dumka Railway station - 34 Km in SE direction.
20	Nearest Air Port	: Kazi Nazrul Islam Airport, Durgapur, West Bengal – 98.30 Km – SW direction Birsra Munda Airport, Ranchi – 245 Km in SW direction
21	Nearest Forest	: Protected Forest – 0.40 Km in NW direction
22	Road & Highways	: Metal Road – 0.08 Km in East direction. SH 18 (Dumka – Pakur Road) – 3.40 Km.

#### CO-ORDINATES

Geo-Coordinates of all corner points of Demarcated Block Boundary (GPS Co-ordinates) Datum : WGS 84		
Corner Point	Latitude	Longitude
1	24°27'36.37" N	87°32'39.64" E
2	24°27'38.11" N	87°32'34.28" E
3	24°27'38.19" N	87°32'33.80" E
4	24°27'39.45" N	87°32'34.01" E
5	24°27'39.94" N	87°32'33.04" E
6	24°27'40.69" N	87°32'33.06" E
7	24°27'41.39" N	87°32'33.26" E
8	24°27'41.81" N	87°32'33.64" E
9	24°27'41.42" N	87°32'34.56" E
10	24°27'41.61" N	87°32'34.92" E
11	24°27'41.13" N	87°32'36.47" E
12	24°27'40.45" N	87°32'38.04" E
13	24°27'40.25" N	87°32'37.74" E
14	24°27'40.02" N	87°32'37.71" E
15	24°27'39.98" N	87°32'36.16" E
16	24°27'39.40" N	87°32'35.75" E
17	24°27'38.78" N	87°32'36.13" E
18	24°27'39.49" N	87°32'37.84" E

*Handwritten signatures and marks:* A, B, and several illegible signatures.

19	24°27'39.28" N	87°32'38.68" E
20	24°27'38.47" N	87°32'38.11" E
21	24°27'38.34" N	87°32'38.62" E
22	24°27'39.34" N	87°32'39.42" E
23	24°27'39.22" N	87°32'40.13" E
24	24°27'38.54" N	87°32'39.89" E
25	24°27'37.79" N	87°32'40.32" E
26	24°27'37.56" N	87°32'40.30" E

**LAND DETAILS :**

Khata No.	Plot No.
02	428 (P) & 429 (P)
15	431 (P)
12	432 (P) & 434

**STATUTORY CLEARANCES :**

1	LOI/Lease docs	: The Letter of Intent (LoI) has been issued by DMO, Dumka vide letter no. 572/M, dated 03.04.2021.
2	CO	: The CO, Gopikandar vide letter no. : 352/Ra, dated 06.10.2020 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar & Register II.
3	DMO	: DMO, Dumka vide memo no. 1017/M, dated 02.08.2022 certified that 01 other mining lease ( 3.71 acre) exists within 500 m radius from proposed project site and total area is 8.10 acre.
4	DFO Wild Life	: DFO, Wildlife Hazaribagh vide letter no. : 32, dated 08.01.2021 certified that the proposed project site is outside of Eco Sensitive Zone of Udhawa Lake Bird Sanctuary.
5	DFO Forest Distance	: DFO, Dumka Forest Division vide letter no. : 1841, dated 03.09.2020 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	: The District Magistrate -cum- DC, Dumka vide letter no. 683/Khanan, dated 19.04.2021 has informed that this project is part of District Survey Report (DSR) of Dumka district and accordingly necessary action with regard to Environmental Clearance can be taken.

*[Handwritten signatures and initials]*

7	Gram Sabha	:	Gram Sabha conducted on 13.07.2020.
8	Mine Plan Approval	:	Additional Director, Geology, Hazaribag vide letter no. 523/G, dated 29.04.2021.

### Working Details

1	Mining Method	:	Semi Mechanised. Wagon Drilling & Blasting to be used
2	Quarry Area	:	5 years-1.78 Ha      End of Mine - 1.78 Ha
3	Waste Generation	:	5 years- 10,365 Cum.      Life of Mine (Waste Gen.) - 10,365 Cum.
4	Stripping Ratio	:	1:0.02
5	Working Days	:	300
6	Benches: size & No	:	5 m x 3/5 m , Bench No.- 1 to 6(Conceptual Period)
7	Elevation of Mine	:	Maximum Elevation - 208 AMSL Minimum Elevation - 202 AMSL
8	Ground Level Elevation	:	202 AMSL
9	Ultimate Working Depth	:	182 AMSL
10	Water Table	:	156 AMSL
11	Topography of Mine	:	Undulating Terrain
12	Explosive Requirement	:	3.876 Tons/year
13	Diesel/Fuel requirement	:	668 liters / day (200.4 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	34236	114.12	4450	95861	319.53	159 - 144
2nd	35050	116.83	5395	98140	327.13	157 - 143
3rd	34320	114.4	520	96096	320.32	152 - 141
4th	34580	115.26	-	96824	322.74	146 - 136

5th	33540	111.8	-	93912	313.04	136 - 126
Total	171726		10365	480833		Depth 33 m

### Land Use

#### Existing Land Use pattern

S.I	Category	Area in Hectares
1	Mining Area	0.00
2	Office	0.00
3	Dump	0.00
4	Road	0.00
5	Garland Drain	0.00
6	Safety Zone	0.00
7	Settling Tank	0.00
8	Unutilized	1.78
	Total	1.78

#### Proposed Land Use for Current Plan Period

Sl	Category	Area in Hectares
1	Mining Area	1.17
2	Office	0.00
3	Dump	0.00
4	Road	0.01
5	Garland Drain	0.60
6	Safety Zone	
7	Settling Tank	
8	Unutilized	0.00
	Total	1.78

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

Sl	Category	Area in Hectares
1	Mining Area + Road	1.18 ( Water Body)
5	Garland Drain + Safety Zone + Settling Tank	0.60 ( Plantation)
8	Unutilized	0.00
	Total	1.78

## ENVIRONMENT MANAGEMENT

### Green Belt Development

SL	LOCATION		Area/Length	No of Trees
1	Safety Zone/Green Belt and other reclaimed area (Garland Drain, Settling Tank)	:	0.60 ha	1,500 trees @ 2500 trees per ha.
2	Haul /Approach Road	:	0.08 KM	54 trees on both sides – 3 m distance

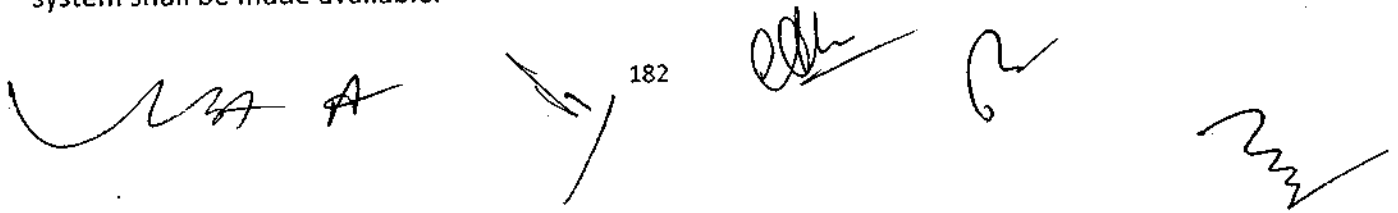
- Gabion Plantation work in the safety zone (7.5 m width around the proposed lease boundary) and on either side of approach road with the spacing of 3x3 m with suitable species such as timber & fruit bearing etc. will be done in first year of operation. Maintenance work such as h/w, mortality replacement,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

#### Waste Generation

A total of 10365 Cum of wastes (Over Burden) will be generated from entire Lakhivad Stone Deposit up to conceptual stage. OB will be utilized for backfilling, 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 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.

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### **Air Quality Management**

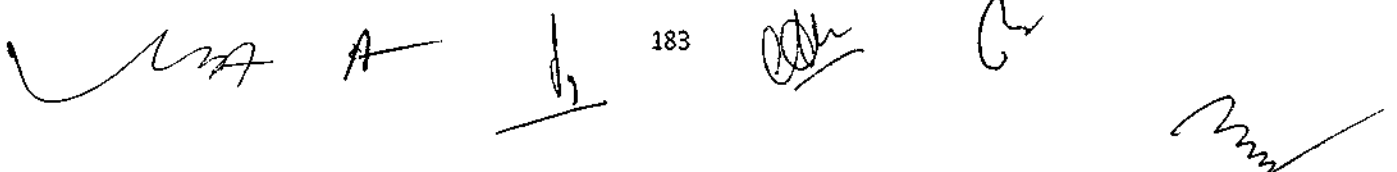



- Dust extractor or wet drilling shall be followed to control dust at source of emission during drilling.
- Sharp drill bits will be used for drilling and regrinding will be done periodically to reduce the dust generation.
- Controlled blasting to reduce dust emission and reduction in NOx emission
- 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 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 Lakhivad Stone Deposit of M/s Varun Singh Sisodia Pvt. Ltd., Mouza : Lakhivad, Block & P.S. : Gopikandar, Distt. : Dumka, Jharkhand (1.78 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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22	Road & Highways	:	NH-114A (Dumka-Rampurhat Road) : 4.35 km North Direction
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**CO-ORDINATES**

1	Latitude	From 24°10'44.27"N	To 24°10'51.01"N
2	Longitude	From 87°33'55.74"E	To 87°33'52.71"E

**LAND DETAILS :**

Khata No.	Plot No.
24	243 (P) & 253 (P)
36	251 (P)
37	244 (P)

**STATUTORY CLEARANCES :**

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Dumka vide letter no. 67/M, dated 20.01.2020.
2	CO	:	The CO, Shikaripara vide letter no. : 1200/Ra, dated 04.12.2019 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyan & Register II.
3	DMO	:	DMO, Dumka vide memo no. 1296/M, dated 24.10.2019 certified that no other mining lease exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. : 2785, dated 20.12.2019 certified that the proposed project site is outside of Eco Sensitive Zone of Udhawa Lake Bird Sanctuary.
5	DFO Forest Distance	:	DFO, Dumka Forest Division vide letter no. : 3955, dated 10.12.2019 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The District Magistrate -cum- DC, Dumka vide letter no. 683/Khanan, dated 19.04.2021 has informed that this project is part of District Survey Report (DSR) of Dumka district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	Gram Sabha conducted on 27.10.2019.

*[Handwritten signatures and marks]*

8	Mine Plan Approval	:	The mine plan has been approved by Additinal Director, Geology, Hazaribag vide letter no. G/2022-23/263, dated 29.09.2022.
9	Previous EC	:	EC issued by SEIAA vide letter no. : EC/SEIAA/2021-22/2340/2021/60, dated 15.07.2021.

### Working Details

1	Mining Method	:	Opencast mechanized Mining	
2	Quarry Area	:	5 years – 2.34	Life of Mine – 5 Years
3	Waste Generation	:	5 years– 32672 Ton (Plan period)	Life of Mine – 5 Years
4	Stripping Ratio	:	NA	
5	Working Days	:	300	
6	Benches: size & No	:	5m x 5m	
7	Elevation of Mine	:	In 242 to 230 MSL	
8	Ground Level Elevation	:	In 228 MSL	
9	Ultimate Working Depth	:	In 200 MSL	
10	Water Table	:	In 190 MSL and also bgl	
11	Topography of Mine	:	Hill slope area	
12	Explosive Requirement	:	Yes	
13	Diesel/Fuel requirement	:	Diesel required only Tipper or truck for transportation.	

### Production Details

Year	Production of stone		Removal in Soil	
	in Tonnes	in CUM	in Tonnes	in CUM
1st	474150	163500	30563	20375
2nd	282158	97296	2109	727
3rd	435363	150125	0	0
4th	190994	65860	0	0
5th	203000	70000	0	0
<b>Total</b>	<b>1585665</b>	<b>546781</b>	<b>32672</b>	<b>21103</b>

### Land Use

SL	Pattern	Existing Land Use (Ha)	Proposed Current Plan Period (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Land Usage at Conceptual Stage

1	Mining Area	0.000	1.46	1.46	Water Body
2	Office /Store	0.000	0.01	0.01	Plantation
3	Road	0.000	0.02	0.02	Plantation
4	Dump	0.000	0.07	0.07	Plantation
5	Safety Zone (Garland Drain / Settling Tank)	0.000	0.73	0.73	Plantation
6	Unutilized	2.34	0.05	0.5	Plantation
	<b>TOTAL</b>	<b>2.34</b>	<b>2.34</b>	<b>2.34</b>	-

## ENVIRONMENT MANAGEMENT

### Green Belt Development

SL	LOCATION	Area/Length	No of Trees
1	Safety Zone	: 0.73 Ha	1168
2	Other Reclaimed Area	: 0.05	75
3	Haul /Approach Road	: 350 meter	175 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

- Top soil Generation will be 21103 Cu.M. during the life of Mine. Top soil storage is 0.07 ha. The Top soil shall be used backfill after end of life of the mine.

### Water Pollution Control Measures:

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

### Air and Noise Pollution Control Measures:

1. Water sprinkling shall be done on the haul roads.
2. Plantation to be done in the safety zone develop a green belt along the ML boundary.
3. Sharp drill will be used and wet drilling will be followed.
4. Controlled blasting- Nonel technology will be used.
5. Overloading will be prohibited while transporting. Water sprinkling will be taken up.

6. Plantation along transportation route will be done.
7. Regular monitoring of Air quality & PUC for vehicle will be carried out.

**Undertaking submitted affirming:**

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If 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 Salbona Pahar Stone Mine of M/s Shri Parasnath Industries, Village : Salbona Pahar, Tehsil : Shikaripara, Distt. : Dumka, Jharkhand (2.34 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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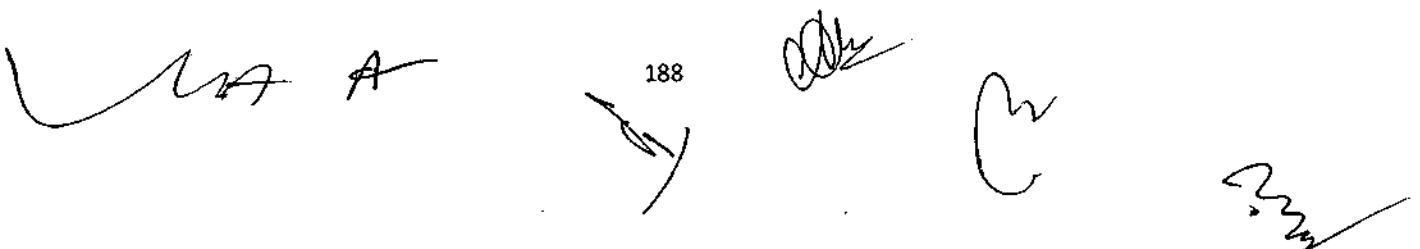
13. Kuchhu Stone Deposit of M/s Veer Stone Work, Village : Kuchhu, Thana : Angara, Thana no. : 71, Distt. : Ranchi, Jharkhand (2.53 Ha).

(Proposal No. SIA/JH/MIN/409271 /2022).

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

This is a new project which has been taken for appraisal on 10.12.2022.

Project Category: B2 – Application

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EC Application for : Boulder Stone : 1,51,616 Tons (Max) per year / 56,154 Cum. (Max.) per Year

**Project and Location Details :**

Sl	Parameter	Details
1	Project Name	: Kuchhu Stone Deposit, Project type – Stone Mine
2	Lessee:	: M/S veer Stone Works, Partners - Shri Abhishekh Anand, & Shri Anand Murti.
3	Lease Address	: Mouza – Khanupur, Block - Pakur, P.S. – Pakur (ML), Dist. – Pakur, State – Jharkhand
4	Lease Area	: Ha: 2.53 ha                      Acres: 6.25 Acres
	Type of Land	: Non Forest – Rayati Land
6	Project Cost	: Capital Cost – 82.80 Lakhs
7	EMP Budget	: Capital: 22.28 Lakhs                      Recurring: 01.64 Lakhs
8	CSR / CER Budget	: 2.20 Lakhs
9	New or Expansion	: New Project
10	Mineable Reserves	: Cu.M.: 3,27,516                      Tonnes: 8,84,293
11	Mine Life	: 5.89 Years Says 6 years only
12	Man power	: 33
13	Water Requirement	: 15.16 KLD (Drinking:0.495 KLD, Dust Suppression: 0.64 KLD, Plantation:14.02 KLD
14	Water Source	: Water will be sourced from abandoned Mine through Water Tanker for Dust Suppression and Plantation.  Water will be sourced from Bore Well within the lease area for Drinking and Domestic Consumption.
15	DG Set / power	: 20 KVA DG Set proposed
16	Crusher	: NA
17	Nearest Water Body	: Subarnarekha river - 4.25 km N direction.
18	Nearest Habitation	: Kuchhu Village, Ranchi – 8 KM
19	Nearest Rail Station	: Ranchi Railway station – 34 km – SW
20	Nearest Air Port	: Ranchi Airport – 36 km-SW
21	Nearest Forest	: Protected Forest – 0.75 Km in North direction
22	Road & Highways	: Pakka Road – 0.08 Km SH-1 (Ranchi-Muri Road) is at a distance of 7.25 Km

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**CO-ORDINATES**

Geo-Coordinates of all corner points of Demarcated Block Boundary (GPS Co-ordinates) Datum: WGS 84		
Corner Point	Latitude	Longitude
1	23°25'03.95" N	85°39'45.43" E
2	23°25'04.40" N	85°39'44.98" E
3	23°25'05.16" N	85°39'43.73" E
4	23°25'06.67" N	85°39'42.17" E
5	23°25'07.20" N	85°39'42.38" E
6	23°25'07.41" N	85°39'43.74" E
7	23°25'07.04" N	85°39'44.41" E
8	23°25'07.30" N	85°39'44.92" E
9	23°25'07.94" N	85°39'45.20" E
10	23°25'07.73" N	85°39'45.96" E
11	23°25'08.03" N	85°39'46.09" E
12	23°25'08.74" N	85°39'45.53" E
13	23°25'10.53" N	85°39'45.96" E
14	23°25'10.49" N	85°39'46.58" E
15	23°25'09.62" N	85°39'47.84" E
16	23°25'09.90" N	85°39'48.06" E
17	23°25'08.73" N	85°39'49.01" E
18	23°25'07.18" N	85°39'50.38" E
19	23°25'05.06" N	85°39'51.84" E
20	23°25'04.56" N	85°39'51.23" E
21	23°25'05.24" N	85°39'48.38" E
22	23°25'05.41" N	85°39'46.88" E

**LAND DETAILS :**

Khata No.	Plot No.
144	1889

**STATUTORY CLEARANCES :**

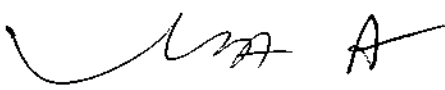
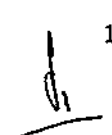



1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Ranchi vide letter no. 705/M, dated 05.09.2022.
2	CO	:	The CO, Angara, Ranchi vide letter no. : 553 (ii), dated 12.07.2022 has mentioned the plot no. of the project is not recorded as

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			"Jungle Jhari" in R.S. Khatiyar & Register II.
3	DMO	:	DMO, Ranchi vide memo no. 724/M, dated 08.09.2022 certified that no other mining lease exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Ranchi vide letter no. : 829, dated 08.09.2022 certified that the proposed project site is outside of Eco Sensitive Zone of Palkot Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Ranchi Forest Division vide letter no. : 3060, dated 20.07.2022 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. 771/M, dated 19.09.2022 has informed that this project is part of District Survey Report (DSR) of Ranchi district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Angara, Ranchi vide Letter no. 839 (ii), dated 01.08.2022 informed that Gram Sabha conducted on 13.07.2022.
8	Mine Plan Approval	:	Additional Director, Geology, Hazaribag vide memo no. 248/G, dated 13.09.2022.

### Working Details

1	Mining Method	:	Semi Mechanised. Wagon Drilling & Blasting to be used
2	Quarry Area	:	5 years–1.37 Ha      End of Mine – 1.37 Ha
3	Waste Generation	:	5 years– 20,424 Cum.      Life of Mine (Waste Gen.) – 20,424 Cum.
4	Stripping Ratio	:	1:0.03
5	Working Days	:	300
6	Bench: size & No	:	5 m x 5/6 m , Bench No.- 1 to 6 (Conceptual Period)
7	Elevation of Mine	:	Maximum Elevation – 601AMSL Minimum Elevation – 599 AMSL
8	Ground Level Elevation	:	599 AMSL
9	Ultimate Working Depth	:	571 AMSL
10	Water Table	:	558 AMSL
11	Topography of Mine	:	Undulating Terrain
12	Explosive Requirement	:	.61 tons per year

13	Diesel/Fuel requirement	:	HSD – 732 liters / day (219.6 KL/year)
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**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	46,746	155.82	15916	126,214	420.713	547 – 540 ( 2 m O.B.)
2nd	46,158	153.86	4508	124,627	82.09	547 – 535
3rd	43,708	145.69	0	118,012	393.37	540 - 535
4th	56,154	187.18	0	151,616	505.386	535 – 530
5th	50,960	169.866	0	137,592	458.64	530– 525
<b>Total</b>	<b>243,726</b>	<b>812.416</b>	<b>20424</b>	<b>658,060</b>	<b>1860.199</b>	<b>Depth 22 m</b>

**Land Use**

**Ex isting Land Use pattern**

SL	Category	Area in Hectares
1	Mining Area	0.000
2	Office	0.000
3	Dump	0.000
4	Road	0.000
5	Garland Drain	0.000
6	Safety Zone	
7	Settling Tank	
8	Unutilized	2.53
	<b>TOTAL</b>	<b>2.53</b>

**Proposed Land Use for Current Plan Period**

SL	Pattern	Area in Hectares
1	Mining Area	1.37
2	Office	0.04
3	Dump	0.10
4	Road	0.02
5	Garland Drain	0.60
6	Safety Zone	
7	Settling Tank	
8	Unutilized	0.40
	<b>TOTAL</b>	<b>2.53</b>

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

SL	Pattern	Area in Hectares
1	Mining Area+ Mining Road+ Office	1.43 (Water Body)
2	Garland Drain +Dump+ Settling Tank+ Safety Zone	0.70 (Plantation)
3	Unutilized	0.40 ( Plantation)
	<b>TOTAL</b>	<b>2.53</b>

**ENVIRONMENT MANAGEMENT**

**Green Belt Development**

SL	LOCATION	Area/Length	No of Trees
1	Safety Zone/Green Belt and other reclaimed area (Garland Drain, Settling Tank, Dump)	: 0.70 ha	1,750 trees @ 2500 trees per ha.
2	Haul /Approach Road	: 0.08 KM	54 trees on both sides – 3 m distance

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

Waste Generation

A total of 20,424 Cum. of wastes (Over Burden) will be generated from entire Kuchhu Stone Mine up to conceptual stage. OB will be utilized for backfilling, 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 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

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discharge to natural drainage system. Check Pits and Retainer walls shall be constructed to prevent water flowing into the lease area from outside or from inside the lease area to the outside

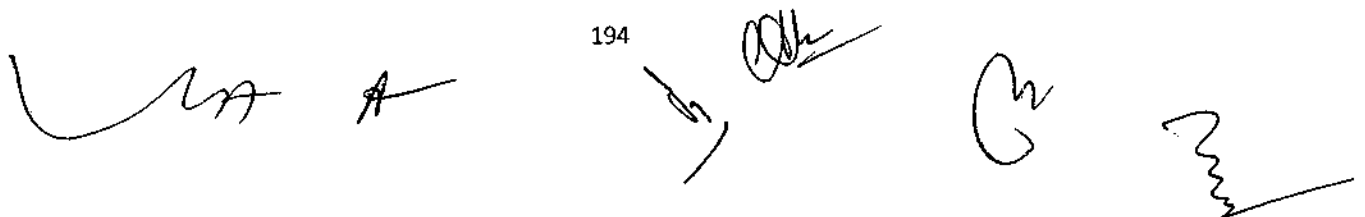
- For domestic waste water Septic Tank with Soak Pit shall be provided, discharge from Soak Pit, if any shall be used for plantation.
- It shall be ensured that quality of drinking water for the worker is hygienic and good sanitation system shall be made available.

#### Air Quality Management

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

#### Undertaking submitted affirming:

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

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i. If tree falling is required a permission from competent Authority should be obtained.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Kuchhu Stone Deposit of M/s Veer Stone Work, Village : Kuchhu, Thana : Angara, Thana no. : 71, Distt. : Ranchi, Jharkhand (2.53 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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14. Murma Stone Mine of M/s AGR Minerals (Prop. : Shri Gulshan Kumar Singh), Mouza : Murma, Thana no. : 261, Thana : Satbarwa, Distt. : Palamu, Jharkhand (0.81 Ha).

(Proposal No. SIA/JH/MIN/408149 /2022).

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

This is a new project which has been taken for appraisal on 10.12.2022.

Project Category: B2 – Application for Stone Quarry

EC Application for: Boulder Stone: 19140 Cu.M. Per Annum / 55506 Ton Per Annum

**Project and Location Details :**

Sl	Parameter	Details
1	Project Name	: Murma Stone Mine
2	Director:	: Sri Gulshan Kumar Singh
3	Lease Address	: Plot No.- 387 Khata no-11,Village/Mauza–Murma, Thana no.-261, Thana- Satbarwa, District- Palamau; State Jharkhand
4	Lease Area	: Ha: 0.81 Acres: 2.0 Acres
5	Type of Land	: Non Forest – Raiyati Land
6	Project Cost	: 39 Lakhs
7	EMP Budget	: Capital: 3.89 Lakhs Recurring: 3.0 Lakh / year
8	CSR / CER Budget	: Rs. 2.15Lakhs
9	New or Expansion	: New
10	Mineable Reserves	: Cu.M.: 191397 Cu. M. Tonnes: 555051 Tonnes
11	Mine Life	: 10 years
12	Man power	: 17

13	Water Requirement	:	Total water requirement is about 6.51, Drinking water (human) about 0.51, water sprinkling (Source-Near Canal/Water Tanker) about 3.0, Plantation about 3.0
14	Water Source	:	The drinking water will be available from nearby village by tractor tank manually by labors at the site.
15	DG Set / power	:	Required
16	Crusher	:	N/A
17	Nearest Water Body	:	Maila River 1.08 km in WNW Direction
18	Nearest Habitation	:	Murma about 0.10 Km in WNW direction
19	Nearest Rail Station	:	Kechki Railway Station is about 14.32 km km in W direction.
20	Nearest Air Port	:	Gaya Airport is about 114.34 km in NE direction
21	Nearest Forest	:	NIL
22	Road & Highways	:	NH-39 is 1.34 km in SSE direction

#### CO-ORDINATES

1	Latitude	:	From 23°54'37.71"N	To 23°54'36.66"N
2	Longitude	:	From 84°17'09.058E	To 84°17'08.78"E

#### LAND DETAILS :

Khata No.	Plot No.
11	387

#### STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Palamau, Medininagar vide letter no. 2432/M, dated 09.09.2022.
2	CO	:	The CO, Satbarwa (Palamau) vide letter no. : 14, dated 07.01.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Palamau, Medininagar vide memo no. 2513/M, dated 21.09.2022 certified that no other mining lease exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Core Area Palamu Tiger Reserve vide letter no. : 918, dated 06.10.2021 certified that the proposed project site is outside of Eco

			Sensitive Zone of Betla National Park & Palamau Wildlife Sanctuary.
5	DFO Forest Distance	:	DFO, Medininagar Forest Division vide letter no. : 328, dated 25.01.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC –cum– District Magistrate, Palamau, Medininagar vide letter no. 2789/M, dated 09.11.2022 has informed that this project is part of District Survey Report (DSR) of Dumka district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Satbarwa (Palamau) vide Letter no. 805, dated 25.08.2022 informed that Gram Sabha conducted on 24.08.2022.
8	Mine Plan Approval	:	Additional Director, Geology, Hazaribag vide memo no. 279/G, dated 06.10.2022.

#### Working Details

1	Mining Method	:	Opencast Method & Mechanized.
2	Quarry Area	:	0.81 ha Life of Mine – 10 years
3	Waste Generation	:	5 years–00 Cu.M
4	Stripping Ratio	:	1:0.00
5	Working Days	:	300
6	Benches: size & No	:	6m x 6m
7	Elevation of Mine	:	304 In AMSL
8	Ground Level Elevation	:	302 m In AMSL
9	Ultimate Working Depth	:	272 AMSL
10	Water Table	:	262 m AMSL
11	Topography of Mine	:	Uneven land
12	Explosive Requirement	:	12 Kg/Day
13	Diesel/Fuel requirement	:	238.8 KL/year (796 Litres/day)

#### Production Details

Year	Generation of waste/O.B in Ton	Production of stone in (Cum)	Production of stone in (Ton)
1 <sup>st</sup>	00	18862	554700
2 <sup>nd</sup>	00	19116	55436

3 <sup>rd</sup>	00	19140	55506
4 <sup>th</sup>	00	19122	55454
5 <sup>th</sup>	00	19138	55500
	00	95378	276596

## Land Use

LAND USE PATTERN			
Category	Existing	First to Fifth years	After life of mine
	Area in Hectares	Area in Hectares	Area in Hectares
Quarry	0.00	0.54	0.54 Ha (rain water harvesting)
Haul Road	0.00	0.01	0.00
Proposed Crusher	0.00	0.00	0.00
Green belt in Safety Barrier	0.00	0.26	0.26
Dump with Parapet wall & Garland drain	0.00	0.00	0.00
<b>Total area in use</b>	0.00	<b>0.81</b>	<b>0.81</b>
Balance unused area	0.00	0.00	0.00
Balanced used area	0.00	0.00	0.00
<b>Total existing Area</b>	<b>0.81</b>	<b>0.81</b>	<b>1.38</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development

SL	LOCATION	Area/Length	No. of Trees
1	Safety Zone	: 0.26 Ha	464 trees @ 1600 trees per ha
2	Other Reclaimed Area	: NIL	NIL
3	Haul /Approach Road	: 0.03	48 Plants on both sides – 150 m distance

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

- There is waste to be generated 00 Cu.M. during life of mine which will be reclaimed after life of mine.

### **Water Quality Management**

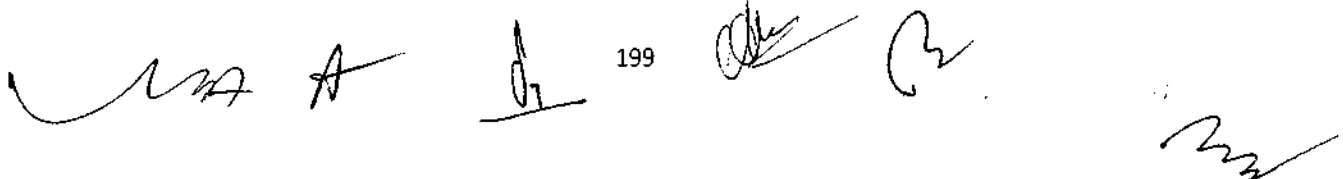
- Mining is planned to above the ground water table. In case any intersection is likely, mining activities will be stopped 10m above the Ground Water Table.
- The rain water during rainy season will be collected in a pit and shall be use for dust suppression and plantation. Excess water, if any shall be discharged in natural stream after settling of suspended particles in the pit. Pump having required capacity will be installed to lift accumulated rain water from working pit and pumped to the settling tank.
- Garland drain shall be made around the Waste dump and the rain water shall be collected in garland drain and allowed to settle in a small pit for settling suspended particles before allowing discharge to natural drainage system. Check Pits and Retainer walls shall be constructed to prevent water flowing into the lease area from outside or from inside the lease area to the outside.
- For domestic waste water Septic Tank with Soak Pit shall be provided, discharge from Soak Pit, if any shall be used for plantation.
- It shall be ensured that quality of drinking water for the worker is hygienic and good sanitation system shall be made available.

### **Air Quality Management**

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

### **Undertaking submitted affirming:**

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

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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 Murma Stone Mine of M/s AGR Minerals (Prop. : Shri Gulshan Kumar Singh), Mouza : Murma, Thana no. : 261, Thana : Satbarwa, Distt. : Palamu, Jharkhand (0.81 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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15. Residential Building / Apartment Project "Aastha Valley" of M/s Kamini Kaushal Construction, Village : Tamolia, Distt. : Saraikela Kharsawan, Jharkhand.

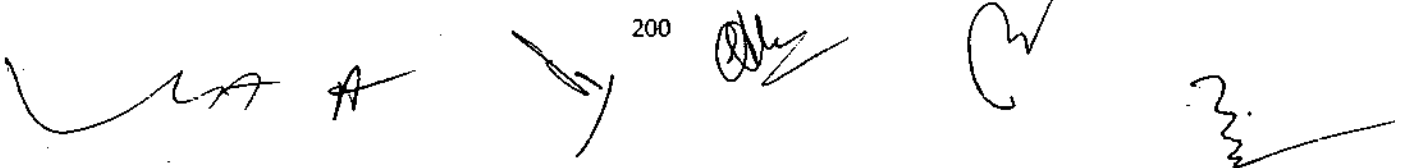
(Proposal No. SIA/JH/MIS/80754 /2022).

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

This is a case of violation which has been taken for appraisal on 10.12.2022 in the light of OM no. F.No.22-21/2020-IA.III [E 138949] dated 28.01.2022 of MoEF&CC, Govt. of India, order passed by Hon'ble Apex Court in the matter of civil appeal no. 7576-7577 of 2021 in Electrosteel Steels Ltd. vs Union of India and SOS vide OM no. F.No. 22-21/2020-IA.III dated 07.07.2021 issued by MoEF&CC, Govt. of India.

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

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



The proposed project is construction of Residential Building/Apartment Project "Aastha Valley" of M/S Kamini Kaushal Construction located at Khata no. 150; Plot no. 745 Village: Tamolia, District: Seraikela Kharsawan, Jharkhand. The total plot area of the project is 10566.38 m<sup>2</sup>. The Built-up area for project is 39406.49 m<sup>2</sup>.

• **Background:**

- That Project Proponent has proposed construction of Residential Building/Apartment Project "Aastha Valley" located at Khata no. 150; Plot no. 745 Village: Tamolia, District: Seraikela Kharsawan, Jharkhand.
- Total plot area 10566.38 m<sup>2</sup> or 2.61 acres. The Built-up area for project is 39406.49 m<sup>2</sup> (including FAR + NON FAR + Services).
- The project consists of 3 Blocks named Doon Building, Indus-1 & Indus-2 Building and Araku Building with Clubhouse for which application has been submitted for Environment Clearance.
- Approved building drawing from Saraikela Kharsawan Zila Parishad of 3 blocks named Doon Building, Indus-1 & Indus-2 Building and Araku Building for vide Memo No. SKZP/BP/0003/2019/ALT2, dated 07/11/2020 and SKZP/BP/0003/2019, dated 19/07/2019 for 39406.49 m<sup>2</sup> built-up area has already been obtained.
- Approx. 75% of the project has already been completed.

• **Salient features of the project:**

S. No.	Area Details	AREA (sq.mt.)
1	Total plot area	10566.38
2	Net Plot Area	10530.40
3	Permissible Coverage Area (@50%of Net Plot Area)	5265.20
4	Proposed Coverage Area (@36.60% of Net Plot Area)	3853.97
5	Balance Coverage Area (@13.40% of Net Plot Area)	1411.23
6	FAR Area	26181.42
7	Non FAR Area	8225.07
8	Miscellaneous Area (UGT, STP, Lift, Lobby, club etc.)	5000
9	Built up area	39406.49
10	Green Area (@20% of Total Plot Area)	2113.276

• **Block (Building) Wise Area Details:**

Doon Building (B+G+6)	
Floor Name	Total Built up Area (Sq. M.)
Basement	1238.99

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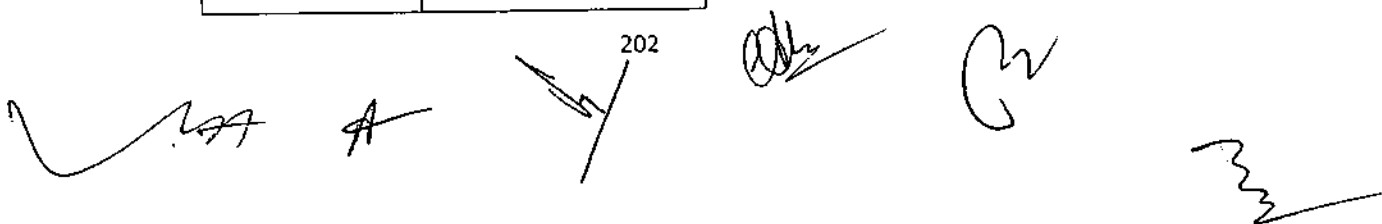
Ground Floor	1142.04
First Floor	1174.71
Second Floor	1174.71
Third Floor	1174.71
Fourth Floor	1174.71
Fifth Floor	1174.71
Sixth Floor	1174.71
<b>Total Builtup Area</b>	<b>9429.29</b>

<b>Indus-1 &amp; Indus-2 Building (B+G+6)</b>	
<b>Floor Name</b>	<b>Total Built up Area (Sq. M.)</b>
Basement	5161.12
Ground Floor	2070.94
First Floor	2083.52
Second Floor	2083.52
Third Floor	2083.52
Fourth Floor	2083.52
Fifth Floor	2083.52
Sixth Floor	2083.52
<b>Total Builtup Area</b>	<b>19733.18</b>

<b>Araku Building (G+6)</b>	
<b>Floor Name</b>	<b>Total Builtup Area (Sq. M.)</b>
Basement	NA
Ground Floor	748.52
First Floor	749.25
Second Floor	749.25
Third Floor	749.25
Fourth Floor	749.25
Fifth Floor	749.25
Sixth Floor	749.25
<b>Total Builtup Area</b>	<b>5244.02</b>

**LAND DETAILS :**

<b>Khata No.</b>	<b>Plot No.</b>
150	745


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**Latitude & Longitude of the project :**

S. No.	Latitude	Longitude
1	22°51'1.99"N	86°11'55.41"E
2	22°50'59.50"N	86°11'56.41"E
3	22°50'59.82"N	86°11'58.93"E
4	22°50'58.68"N	86°11'58.96"E
5	22°50'58.16"N	86°11'55.52"E
6	22°50'59.34"N	86°11'51.78"E
7	22°51'0.56"N	86°11'52.22"E
8	22°51'0.29"N	86°11'53.10"E
9	22°51'1.17"N	86°11'53.39"E
10	22°51'0.87"N	86°11'54.54"E
11	22°51'2.18"N	86°11'54.93"E

• **Population Break up:**

S. No.	Particulars	No. of Flats	PPU/No. of person/m <sup>2</sup>	Total
1	Residents	301	@5 Person Per Unit	1505
2	Staff	-	@10% of Total Residential Population	150
3	Visitors	-	@ 10% of Total Residential population	150
<b>Total</b>				<b>1805</b>

• **Site Surroundings:**

S. No	Particulates	Name of Places	Distance (Km)	Direction
1.	Nearest Airport	Sonari airport	4.64	SSW
2.	Nearest Railway Station	Adityapur Railway station	8.60	SSW
3.	Nearest Bus Stand	Mango Government Bus Terminus	2.67	SE
4.	Nearest State Highway/Any other road	-	-	-
5.	Nearest National Highway	NH-118 NH-18	0.38 1.12	E N

6.	Nearest School/College	Government Primary School	0.42	NW
		Govind Vidyalaya Tamulia	0.22	SW
		J.K.S. College	1.05	SSE
7.	Nearest Masjid/Mandir	Shiv Mandir	0.16	WNW
		Masjid E Hashmi	1.04	SW
8.	Nearest Hospital	Brahmananda Narayana Multispeciality Hospital, Jamshedpu	0.59	WSW
		Ardeshir Dalal Memorial Hospital	7.36	SE
9.	Nearest Police Station	Azadnagar Police Station	1.20	SSE
10.	Nearest Fire Station	Fire Station Mango	3.41	ESE
11.	State Border	West Bengal Border	23.13	E
12.	National Border	NA		
13.	Nearest Pond	Kitadih Pond	10.23	S
		Makhdumpur pond	10.22	S
14.	Nearest River/Nallah/ Canal	Subarnarekha River	3.27	S
15.	Wild Life Sanctuary	Jamshed Ji Tata wildlife sanctuary	4.75	NNE
		Dalma Wildlife Sanctuary	5.24	N
16.	Reserved Forest	-	-	-
17.	Wetland	-	-	-
18.	Nearest Defence Installation	CRPF Ground	6.32	SE

- Water Requirement:**

The water requirement will be met by Municipal Supply. The total water requirement for operational phase is approx. **219 KLD**. Fresh water requirement is approx. **140 KLD**.

- Calculations for Daily Water Demand:**

S. No.	Particulars	Occupancy/ Area/ No's	Fresh Water Demand		Treated Water Demand		Total
			LPCD	Quantity	LPCD	Quantity	
1	Residents	1505	90	135.45	45	67.725	203.175
2	Staff	150	25	3.75	20	3	6.75
3	Visitors	150	5	0.75	10	1.5	2.25
4	Landscape	2113.276	NIL	NIL	3	6.339828	6.339828
<b>Total Water Requirement</b>				139.95~ 140		78.57 ~ 79	218.52~ 219

- **Summary of Water and Waste water:**

S. No.	Particulars	In KLD
1	Total Water Requirement	219
2	Water Requirement met by Fresh Water	140
3	Water Requirement met by Treated Water	79
4	Wastewater Generated ( 80% of Fresh + 100% Flushing)	185
5	STP Capacity (at least 20% higher than the wastewater generated)	222

- **Power Requirement:**

There is requirement of 3153 kVA power supply. 2 DG sets of capacity of 500 kVA each are proposed to be used as backup power supply. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion.

- **Calculation of Solid Waste generation :**

S. No.	Category	Kg per capita per day	Waste generated (kg/day)
1	Residents	0.5 kg/day	752.5
2	Staff	0.25 kg / day	37.5
3	Visitor	0.15 kg /day	22.5
4	Landscape waste (2113.276 m <sup>2</sup> )	0.2 kg/acres	0.1
<b>Total Solid Waste Generated</b>			<b>812.6 kg/day</b>

**STATUTORY CLEARANCES :**

1	DFO Forest Distance	DFO, Seraikela Forest division vide letter no. 2036, dated 14.10.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
2	DFO wildlife	: DFO, Dalma Elephant Project vide letter no. 1712, dated 28.11.2022 certified that the proposed project site is outside Eco Sensitive Zone.
3	CO certificate	: The CO, Chandil vide letter no. 832, dated 09.09.2022 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyar & Register II.
4	Fire Department	: A fire advisory has been issued by Fire Department, Jharkhad, Ranchi vide vide memo no. 1489/Tech./2020, dated 13.07.2020.

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5	Building Plan	:	a. Building permit approved (Doon) by Saraikela Kharsawan Zila Parishad vide memo no. 0012, dated 14.12.2020 (Application no. SKZP/BP/ 0003/2019/ALT2, dated 07.11.2020) b. Building permit approved (Indus I & II and Araku) by Saraikela Kharsawan Zila Parishad vide memo no. 0004, dated 02.08.2019 (Application no. SKZP/BP/0003/2019, dated 19.07.2019)
6	AAI	:	Not applicable (As the building height is within 30 mts). As per the G.S.R. 770 (E) dated 17.12.2022 the height of building comes under permissible height as per CCZM map.

The consultant informed that the baseline data collection for preparation of EIA/EMP has been started from 1st December, 2022 for a period of one month and requested that this may be accepted.

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 07, 08, 09, 10 & 11.12.2022, the Committee recommends for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure VI.

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16. Sidpahari and Manjhladih Stone Mine of M/s Lutfal Stone and Granite, Village : Sidpahari & Manjhladih, Thana no. : 59 & 60, Anchal : Hiranpur, Dist. : Pakur, Jharkhand (2.696 Ha).

(Proposal No. : SIA/JH/MIN /409404 /2022).

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

This is a new project which has been taken for appraisal on 10.12.2022.

EC Application for: Boulder Stone : 46388 Cum Per Annum/129886 Ton Per Annum

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 92<sup>nd</sup> meeting held on 20-23.10.2021 and SEIAA, Jharkhand has approved the ToRs in 93<sup>rd</sup> meeting held on 26<sup>th</sup>, 27<sup>th</sup> & 28<sup>th</sup> October, 2021. TOR for the project was issued by SEIAA, Jharkhand vide letter no. 202, date 30.10.2021. The final EIA / EMP submitted by PP to SEIAA on 07.12.2022 and which was forwarded to SEAC on 08.12.2022.

Project and Location Details:

Sl	Parameter	:	Details
1	Project Name	:	Sidpahari and Manjhladih Stone Mine

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2	Lessee:	:	Partner's- Sri Lutfal Haque, Smt. Mahamoda Bibi and Smt. Mursida Bibi	
3	Lease Address	:	Mauza- Sidpahari and Manjhladih, Thana No.-59 & 60 , Anchal- Hiranpur, District- Pakur, Jharkhand	
4	Lease Area	:	Ha: 2.696 ha	Acres: 6.66 Acres
5	Type of Land	:	Non Forest – Rayati Land	
6	Project Cost	:	55 Lakhs	
7	EMP Budget	:	Capital: 7.55 Lakhs	Recurring: 2.97 Lakh / year
8	Budget for PH Commitment	:	Rs. 5.0 Lakhs	
9	New or Expansion	:	New Project	
10	Mineable Reserves	:	Cu.M.: 463287Cu. M.	Tonnes: 1297204 Tonnes
11	Mine Life	:	10 years	
12	Man power	:	22	
13	Water Requirement	:	9.16 KLD=0.66 KLD (Drinking & Domestic Uses) + 4 (Plantation) KLD + 4.5 KLD (Dust Suppression).	
14	Water Source	:	From Nearby villages by tankers	
15	DG Set / power	:	60 KVA	
16	Crusher	:	Not Proposed	
17	Nearest Water Body	:	Kanloi River Approx 4.66 KM North East	
18	Nearest Habitation	:	Hiranpur Anchal: Appox.5.8 KM;	
19	Nearest Rail Station	:	Kotalpukur Railway Station, Approx 7 km in East direction	
20	Nearest Air Port	:	Kolkatta: 246 KM	
21	Nearest Forest	:	NIL	
22	Road & Highways	:	Metalled Road – 2 KM Hiranpur Road, Approx. 4.2 KM West	

**CO-ORDINATES :**

Pillar No.	Latitude	Longitude
01	24°43'33.29"N	87°45'39.59"E

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02	24°43'35.5"N	87°45'38.4"E
03	24°43'34.74"N	87°45'31.28"E
04	24°43'33.48"N	87°45'29.87"E
05	24°43'31.03"N	87°45'28.25"E
06	24°43'29.54"N	87°45'29.91"E
07	24°43'30.37"N	87°45'32.13"E
08	24°43'32.11"N	87°45'35.55"E
09	24°43'32.06"N	87°45'38.03"E

**LAND DETAILS :**

Mouza	J.B. NO.	PLOT NO.
Manjhladih	45	419, 420, 421, 422
	14	607, 625, 627/P
	24	609, 610
	28	611/P, 624
	20	614
	37	615, 616/P, 617/P, 618, 619/P, 620, 621, 622, 623,
	43	608
Sidpahari	06	771
	24	772/P and 773

**STATUTORY CLEARANCES :**

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Office, Pakur vide letter no. 507/M dated 27.03.2021.
2	CO	:	The CO, Hiranpur vide letter no. 375/Ra, dated 04.09.2020 has mentioned the plot nos. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyani & Register.
3	DMO	:	DMO, Pakur vide memo no. 519/M, dated 31.03.2021 certified that four lease (39.15 Acres / 15.84 ha) exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Division, Hazaribag, vide letter no. 738, dated 10.04.2021 certified that the proposed project site is outside of Eco Sensitive Zone of Udhawa Lake Bird Sanctuary.
5	DFO Forest Distance	:	DFO, Pakur Forest Division vide letter no. 368, dated 24.02.2021 certified that the distance of reserved /

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			protected forest from the Project site is more than 250 m.
6	DSR	:	The DC-cum-District Magistrate, Pakur vide letter no. 1412 / M, dated 12.08.2021 has informed that this project is part of District Survey Report (DSR) at Pakur district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Hiranpur vide Letter no. 839/Vi, dated 19.10.2020 informed that Gram Sabha conducted on 16.09.2020.
8	Mine Plan Approval	:	DMO, Pakur vide memo no. 1504/M, dated 27.08.2021.
9	Public Hearing	:	Public Hearing conducted on 18.08.2022.

**Working Details :**

1	Mining Method	:	Opencast Method, Mechanized Mine, Wagon Drilling, Deep Hole & Control Blasting will be deployed in proposed area	
2	Quarry Area	:	5 years – 1.256 ha.	Life of Mine – 1.786 ha.
3	Waste Generation	:	3 years–12486 cum	Life of Mine – 12486 cum
4	Stripping Ratio	:	1:0.01	
5	Working Days	:	300	
6	Benches: size & No	:	6m x 6m	
7	Elevation of Mine	:	In 59m AMSL	
8	Ground Level Elevation	:	In 58m AMSL	
9	Ultimate Working Depth	:	39 m AMSL	
10	Water Table	:	30 m AMSL	
11	Topography of Mine	:	Uneven Land	
12	Explosive Requirement	:	75 Kg/Day	
13	Diesel/Fuel requirement	:	386 Litres/day	

**Production Details :**

Year	Production of stone (Cum)	Production of stone (Tonne)	Generation of Waste/O.B in cum	Bench RL in Meters
1 <sup>st</sup>	46280	129584	4500	57-51
2 <sup>nd</sup>	46368	129830	4282	57-51
3 <sup>rd</sup>	46294	129623	3704	51-45
4 <sup>th</sup>	46294	129623	00	57-45
5 <sup>th</sup>	46388	129886	00	45-39

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Total	231624	648546	12486	
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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)	Land Usage at Conceptual Stage
1	Mining Area	0.00	1.256	1.786	Water Reservoir
2	Office /Store	0.00	0.00	0.00	Not Proposed
3	Crusher	0.00	0.00	0.00	Not Proposed
4	Road	0.00	0.03	0.02	Approach Road
5	Dump with Parapet wall & Garland drain	0.00	0.22	0.00	Backfilling
6	Green belt in Safety Barrier	0.00	0.78	0.78	Plantation in 7.5mtr safety zone
8	Unutilized	2.696	0.41	0.11	
	<b>TOTAL</b>	<b>2.696</b>	<b>2.696</b>	<b>2.696</b>	

## ENVIRONMENT MANAGEMENT

### Green Belt Development

SL	Location		Area/Length	No of Trees
1	Safety Zone	:	0.78 ha	1248 trees @ 1600 trees per ha
2	Other Reclaimed Area	:	NIL	NIL
3	Haul /Approach Road	:	320 one side i.e 640 m both side	256 trees – 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 3 x 3 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 12486 cum of OB waste which will be stacked over an area of 0.22 ha. This will be utilized for back filling before end of mine. .

### **Water Quality Management**

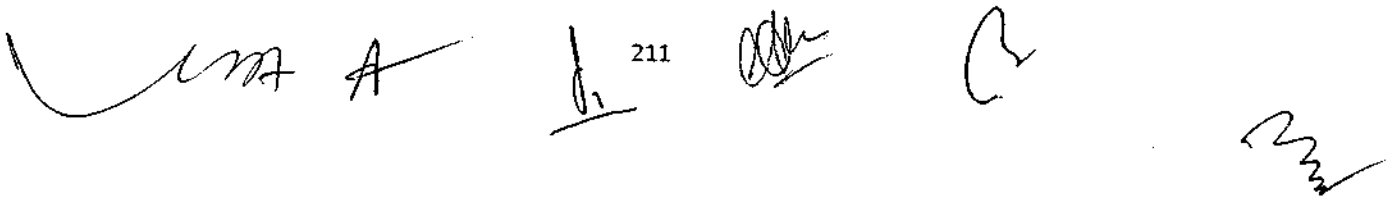
- Mining is planned to above the ground water table. In case any intersection is likely, mining activities will be stopped 2m above the Ground Water Table.
- The rain water during rainy season will be collected in a pit and shall be used for dust suppression and plantation. Excess water, if any shall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

### **Air Quality Management**

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

### **Undertaking submitted affirming:**

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

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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.

During the presentation the following documents were sought :

- i. Budgetary provisions for issues raised during public hearing is to be provided.

The Project Authorities have submitted the above mentioned documents.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Sidpahari and Manjhladih Stone Mine of M/s Lutfal Stone and Granite, Village : Sidpahari & Manjhladih, Thana no. : 59 & 60, Anchal : Hiranpur, Dist. : Pakur, Jharkhand (2.696 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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17. Sidpahari Stone Mine of M/s Lutfal Stone and Granite, Village : Sidpahari, Thana no. : 59, Anchal : Hiranpur, Dist. : Pakur, Jharkhand (1.66 Ha).

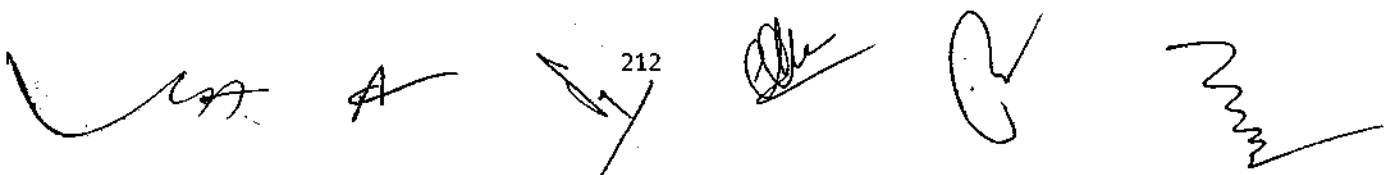
(Proposal No. : SIA/JH/MIN /409405 /2022).

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

This is a new project which has been taken for appraisal on 10.12.2022.

EC Application for: Boulder Stone: 30652 Cum Per Annum / 85826 Ton Per Annum

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 92<sup>nd</sup> meeting held on 20-23.10.2021 and SEIAA, Jharkhand has approved the ToRs in 93<sup>rd</sup> meeting held on 26<sup>th</sup>, 27<sup>th</sup> & 28<sup>th</sup> October, 2021. TOR for the project was issued by SEIAA, Jharkhand vide letter no. 201,

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date 30.10.2021. The final EIA / EMP submitted by PP to SEIAA on 07.12.2022 and which was forwarded to SEAC on 08.12.2022.

**Project and Location Details :**

Sl	Parameter		Details
1	Project Name	:	Sidpahari Stone Mine
2	Lessee:	:	Prop- Sri Lutfal Haque
3	Lease Address	:	Mouza – Sidpahari ; Anchal – Hiranpur District – Pakur; State, Jharkhand
4	Lease Area	:	Ha: 1.66 ha      Acres: 4.11 Acres
5	Type of Land	:	Non Forest – Rayati Land
6	Project Cost	:	45.0 Lakhs
7	EMP Budget	:	Capital: 4.98 Lakhs      Recurring: 2.69 Lakh / year
8	Budget for PH Commitment	:	Rs. 5.0 Lakhs
9	New or Expansion	:	New Project
10	Mineable Reserves	:	Cu.M.: 306412 Cu. M.      Tonnes: 857954 Tonnes
11	Mine Life	:	10 years
12	Man power	:	19
13	Water Requirement	:	8.07 KLD=0.57 KLD (Drinking & Domestic Uses) + 4 (Plantation) KLD + 3.5 KLD (Dust Suppression).
14	Water Source	:	From Nearby villages by tankers
15	DG Set / power	:	60 KVA
16	Crusher	:	Not Proposed
17	Nearest Water Body	:	Kanloi River Approx 4.66 KM North East
18	Nearest Habitation	:	Hiranpur Anchal: Appox.5.8 KM;
19	Nearest Rail Station	:	Kotalpukur Railway Station, Approx 7 km in East direction
20	Nearest Air Port	:	Kolkatta: 246 KM
21	Nearest Forest	:	NIL
22	Road & Highways	:	Metalled Road – 2 KM Hiranpur Road, Approx. 4.2 KM West

**CO-ORDINATES**

Pillar No.	Latitude	Longitude
01	24°43'31.6"N	87°45'40.6"E
02	24°43'33.6"N	87°45'42.2"E
03	24°43'33.5"N	87°45'43.0"E
04	24°43'31.8"N	87°45'46.1"E
05	24°43'29.1"N	87°45'42.9"E
06	24°43'30.2"N	87°45'41.7"E

**LAND DETAILS :**

Mouza	J.B. No.	Plot no.
Sidpahari	41	718/P
	25	721/P, 722, 723/P, 727, 728/P, 729/P, 730
	43	726, 731, 732/P
	24	737/P, 738/P, 774, 775 & 776

**STATUTORY CLEARANCES :**

1	LOI/Lease docs	:	The Letter of Intent (LOI) has been issued by District Mining Office, Pakur vide letter no. 1090/M dated 08.07.2021.
2	CO	:	The CO, Hiranpur vide letter no. 374/Ra, dated 04.09.2020 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyon & Register II.
3	DMO	:	DMO, Pakur vide memo no. 1244/M, dated 23.07.2021 certified that five lease (43.26 Acres/ 17.51 Ha) exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Hazaribag Division vide letter no. 1213, dated 26.07.2021 certified that the proposed project site is outside of Eco Sensitive Zone of Udhawa Lake Bird Sanctuary.
5	DFO Forest Distance	:	DFO, Pakur Forest Division vide letter no. 510, dated 10.03.2021 certified that the distance of reserved / protected forest is more than 250 m from proposed

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			project site.
6	DSR	:	The DC-cum-District Magistrate, Pakur vide letter no. 1412/M, dated 12.08.2021 has informed that this project is part of District Survey Report (DSR) at Pakur district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	BDO, Hiranpur vide Letter no. 838/Vi, dated 19.10.2020 informed that Gram Sabha conducted on 16.09.2020.
8	Mine Plan Approval	:	DMO, Pakur vide memo no. 1503/M, dated 27.08.2021
9	Public Hearing	:	Public Hearing conducted on 17.08.2022.

**Working Details :**

1	Mining Method	:	Opencast Method, Mechanized Mine, Wagon Drilling, Deep hole & Control Blasting will be deployed at proposed site
2	Quarry Area	:	5 years – 0.84ha. - Life of Mine – 1.10 ha.
3	Waste Generation	:	3 years–6600 cum Life of Mine – 6600 cum
4	Stripping Ratio	:	1:0.01
5	Working Days	:	300
6	Benches: size & No	:	6m x 6m
7	Elevation of Mine	:	In 58m AMSL
8	Ground Level Elevation	:	In 57m AMSL
9	Ultimate Working Depth	:	39 m AMSL
10	Water Table	:	30 m AMSL
11	Topography of Mine	:	Unven Land
12	Explosive Requirement	:	50 Kg/Day
13	Diesel/Fuel requirement	:	294 Litres/day

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**Production Details**

Year	Production of stone (Cum)	Production of stone (Tonne)	Generation of Waste/O.B in cum	Bench RL in Meters
1 <sup>st</sup>	30624	85747	3900	57-51
2 <sup>nd</sup>	30622	85742	2700	57-51
3 <sup>rd</sup>	30636	85781	00	57-51
4 <sup>th</sup>	30622	85742	00	51-45
5 <sup>th</sup>	30652	85826	00	51-39
<b>Total</b>	<b>153156</b>	<b>428838</b>	<b>6600</b>	

**Land Use :**

SL	Pattern	Existing Land Use (Ha)	Proposed Current Plan Period (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Land Usage at Conceptual Stage
1	Mining Area	0.00	0.84	1.10	Water Reservoir
2	Office /Store	0.00	0.00	0.00	Not Proposed
3	Crusher	0.00	0.00	0.00	Not Proposed
4	Road	0.00	0.02	0.01	Haul Road
5	Dump with Parapet wall & Garland drain	0.00	0.19	0.00	Back filling
6	Green belt in Safety Barrier	0.00	0.45	0.45	Plantation in 7.5mtr Safety Zone
8	Unutilized	1.66	0.16	0.10	
	<b>TOTAL</b>	<b>1.66</b>	<b>1.66</b>	<b>1.66</b>	

**ENVIRONMENT MANAGEMENT**

**Green Belt Development**

SL	Location	Area/Length	No of Trees
1	Safety Zone	0.45 ha	720 trees @ 1600 trees per ha
2	Other Reclaimed	NIL	NIL

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	Area			
3	Haul /Approach Road	:	260 mtr one side i.e 520 mtr both side	208 trees – 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 3 x 3 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 6600 cum of OB waste which will be stacked over an area of 0.19 ha. This will be utilized for back filling before end of mine.

#### Water Quality Management

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

#### Air Quality Management

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







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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 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.

As per CO, Hiranpur vide letter no. 374, dated 04.09.2020, 18 houses are existing within 500 m. The Committee verified the fact with help of Google Imagery which shown that some habitation is existing at the distance of 430 m from the mine lease area. The PAs have submitted letter dated 02.12.2022 that the resident of 18 houses have no objection for the operation of mine within 400 m of the houses. This letter is signed by Mukhiya, Manjhladih Panchayat alongwith all 112 resident of the village including residents of 18 houses.




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During the presentation the following documents were sought :

- i. Budgetary provisions for issues raised during public hearing is to be provided.

The Project Authorities have submitted the above mentioned documents.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF& CC O.M dated 12.12.18 decided that the proposal for Sidpahari Stone Mine of M/s Lutfal Stone and Granite, Village : Sidpahari, Thana no. : 59, Anchal : Hiranpur, Dist. : Pakur, 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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**18. Common Bio Medical Waste Treatment Facility of M/s Greenland Waste Management Enterprises (GWME) at Mauza : Beliadanga, P.S. : Maheshpur, Distt. : Pakur, Jharkhand (Proposal No : SIA/JH/INFRA2/406943/2022).**

**Name of the consultant: Gaurang Environmental Solutions Pvt. Ltd., Jaipur**

This is a case of violation which has been taken for reappraisal on 07.12.2022.

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

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

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

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





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number 22-21/2020-IA-III, dated 07.07.2021, the matter has been taken for consideration & recommendation of EC for violation projects.







The State Expert Appraisal Committee, Jharkhand deliberated the project during its 93<sup>rd</sup> meeting held on 18-27.02.2022 and SEIAA, Jharkhand has approved the violation ToRs in 94<sup>th</sup> meeting held on 13<sup>th</sup>, 14<sup>th</sup> & 15<sup>th</sup> April, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. 104, date 16.04.2022. The final EIA / EMP submitted by PP to SEIAA on 23.11.2022 and which was forwarded to SEAC on 24.11.2022.

The project involves development of Common Bio Medical Waste Treatment Facility which is categorized under Item 7 (d) (a) (Bio-Medical Waste Treatment Facilities) of the Schedule-Gazette Notification dated 17th April 2015. The project falls under category "B". The total plot area of the unit is 5151.84 sq.m. The land for the proposed project is taken on lease in name of M/s Greenland Waste Management Enterprise (GWME) for the purpose of establishment of a Common Biomedical Waste Treatment Facility only.

### Salient Features Of The Project

S. No	Items	Details			
1.	Project name	Proposed Common Bio Medical Waste Management Facility, Pakur			
2.	Project Proponent	M/s Greenland Waste Management Enterprise (GWME)			
3.	Project capacity	As below:			
		S. No.	Particular	No.	Capacity
		1	Incinerator	1	200 kg/hr
		2	Autoclave	1	600 lt/batch
		3	Shredder	2	30 kg/hr x 2 nos.
		4	ETP	1	10 KLD
		5	Sharp pit	1	-
		6	Ash pit	1	-
4.	Category	B			
5.	Project address				
	Khasra numbers	1958, 1964, 1963, 1968, 1962, 1965			
	Village	Mauza Beliadanga			
	Tehsil	P.S. Maheshpur			
	District	Pakur			
	State	Jharkhand			
	Coordinates	Latitude: 24°29'23.08"N Longitude: 87°36'58.59"E			

6.	Nearest CBWTF	At Dhanbad ~220 km from the proposed site		
7.	Total Plot area	5151.84 sq.m. (1.27 acre)		
8.	Waste to be handled	4000 kg/day		
9.	No. of shifts	3		
10.	No. and types of vehicles for transportation/ collection of waste	12 nos. TATA V10: covered: 6 nos. + 1 (standby) TATA V30: covered: 4 nos. + 1 (standby)		
11.	Trips to be made per day	10 trips/ day		
12.	Environmental sensitivity			
13.	Nearest Town/City	Amrapora	5.69 km	WNW
		Pakur	29.15 km	NE
14.	Nearest railway station	Pakur RS	29.3 km	NE
15.	Nearest highway	Amrapara-Maheshpur-Moraroi road	330 mt.	N
		SH 18	5.54 km	WNW
16.	Nearest airport	Sidho Kanhu airport	45.46 km	SW
17.	Nearest river/ water body	Bansloi Nadi	1.0 km	N
		Soru Nala	7.1 km	NNE
		Tantiduba Nala	13.5 km	NNE
		Kandaha Nala	4.8 km	NE
		Telikokhar Nala	10.4 km	ESE
		Suriudi nadi	6.3 km	SSW
		Baru nadi	13.3 km	SSE
		Trighana Nadi	14.4 km	SW
		Makarkandi nala	12.1 km	W
18.	Water requirement	15.4 KLD  Daily Fresh: 9.4 KLD Recycled : 6 KLD		
	Source:	Bore well at site		




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19.	Waste water generation	7.8 KLD
	Trade effluent	7 KLD
	Domestic sewage	0.8
	Treatment	Trade effluent: ETP Domestic sewage: Septic tank followed by soak pit
20.	Power requirement	111 kVA (100 kW)
	Source	JBVNL, Jharkhand
21.	Back up source	DG set: 62.5 kVA (1 no.)
22.	Transformer	100 kVA
23.	Manpower	10 persons
24.	Project cost	341.82 Lacs

### STATUTORY CLEARANCE

- The DFO, Wildlife Hazaribagh Vide Letter No. 799, Dated 19/04/2021 certified that the proposed project site is outside Eco Sensitive Zone of Udhawa Lake Bird Sanctuary.
- The DFO, Pakur Forest Division vide Letter No. 88 Dated 08/02/2021 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
- The CO, Maheshpur vide Letter No. 66, Dated 25/01/2021 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S Khatiyar & Register II.
- JSPCB, Ranchi vide Ref. no. : PC/PH/DMK/12/2022/B-2352, dated 16.11.2022 informed that Public Hearing conducted on 15.09.2022.

During the presentation the following documents were sought :

- i. The criteria for the selection of the site is to be provided.
- ii. TCLP test to be conducted for project site & finding to be submitted.
- iii. Site layout shown was not clear. Clear layout plan showing location of RWH pits, STP and green belt at the project site is to be provided. Pictorial evidence of the same to be provided.
- iv. Details of air pollution control device to be provided.
- v. The impacts due to the project on the environment and the corresponding mitigation measures have not been adequately provided. The impacts has to be re-assessed and the corresponding mitigation measures has to be provided in details.
- vi. Specific area for handling including segregation of BMW waste to be defined and included in site plan.

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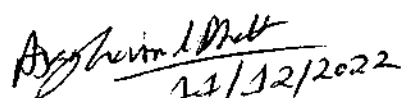
- vii. Details of hospitals feeding BMW waste to said facility to be provided.
- viii. The BDL values of the water parameters analyzed to be provided.
- ix. Ecological Damage assessment & remediation plan and natural & community resource augmentation plan has to be re-worked as per MoEF&CC OM dated 28.01.2022 and latest CPCB guidelines.

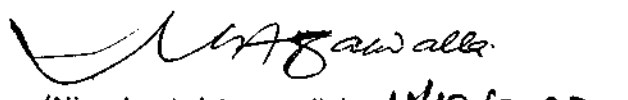
Revised EIA/EMP including all the above requirements is to be submitted for further consideration of the project for grant of EC.

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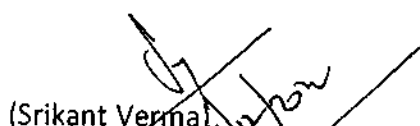
The meeting concluded with thanks to all present.

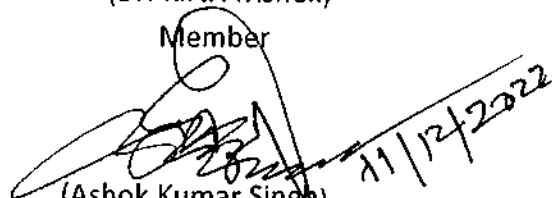
  
(Dr. Raju Kumar)  
Member

  
(Dr. Ajay Govind Bhatt)  
Member

  
(Niranjana Lal Agarwalla) 11/12/2022  
Member

  
(Dr. Kirti Avishek) 11/12/22  
Member

  
(Srikant Verma)  
Secretary

  
(Ashok Kumar Singh) 11/12/2022  
Chairman

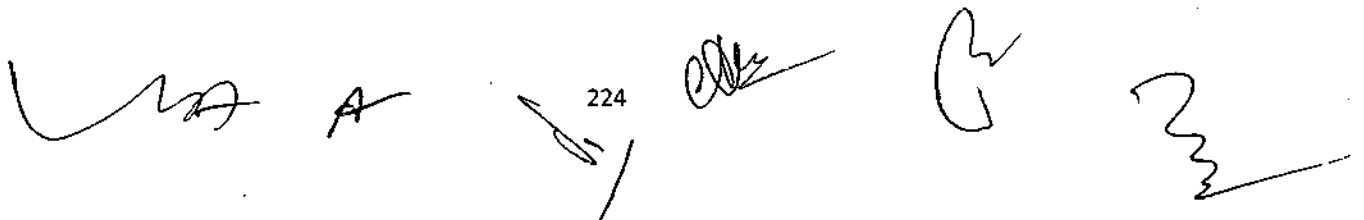


I. Statutory compliance

- 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 2<sup>nd</sup> August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.
- iv. The Hon'ble Supreme Court vide order dated 08.01.2020 in W.P. (Civil) No.114/2014 in the matter of Common Cause vs. Union of India has directed that the area which has been mined should be restored so that grass and other vegetation including trees can grow in the mining area for the benefit of animals.

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

- v. The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgement of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.
- vi. This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.
- vii. This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.
- viii. Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board/Committee.

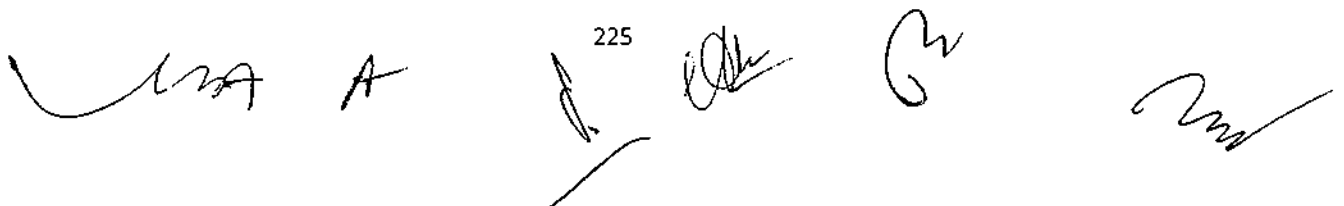
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- ix. The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS)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

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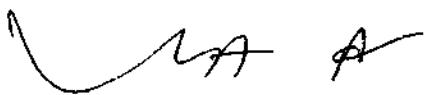
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impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.

- ii. Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from ail sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance: Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC/ Central Pollution Control Board.

### III. Water quality monitoring and preservation

- i. In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF&CC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.
- ii. Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- iii. Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.









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- iv. The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEF&CC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.
- v. Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1/2006-IAJI (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.
- vi. Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEF&CC annually.
- vii. Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.
- viii. The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.

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

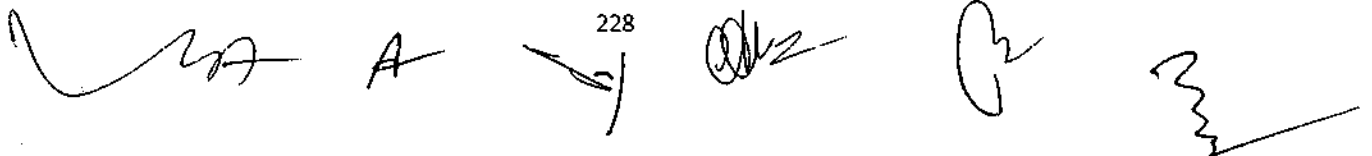
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- i. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
- ii. The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.
- iii. The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

#### V. Mining Plan

- i. The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.
- ii. The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.
- iii. The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the

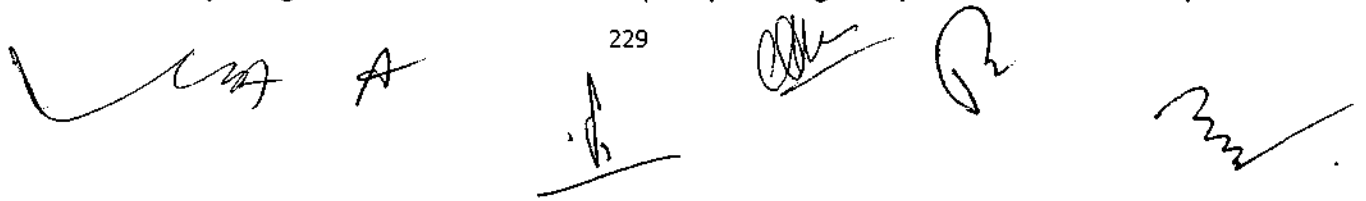
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monitoring and management of rehabilitated areas until the vegetation becomes self sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional Office.

#### VI. Land reclamation

- i. The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.
- ii. The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.
- iii. The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.
- iv. The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.
- v. The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC.
- vi. Catch drains, settling tanks and ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.
- vii. Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period

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thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.

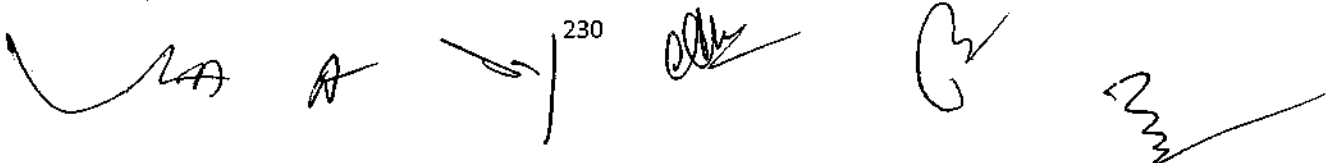
- viii. The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines 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 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.

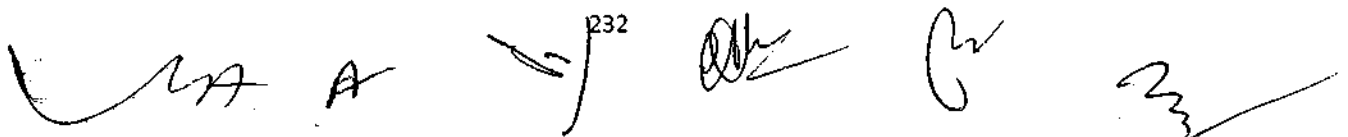
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- ii. The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.
- iii. The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.
- iv. The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.
- v. And implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.

#### IX. Public hearing and human health issues

- i. The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEF&CC Regional Office and DGMS on half-yearly basis.
- ii. The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems

- like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.
- iii. The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium-Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes 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

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- infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.
- vii. The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.

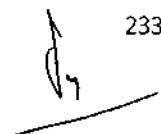
#### X. Corporate Environment Responsibility (CER)

- i. The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.
- ii. Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEF&CC and its concerned Regional Office.

#### XI. Miscellaneous

- i. The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.
- ii. The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- iii. It shall be mandatory for the project management to submit six (06) monthly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard copies and soft copies to the regulatory authority concerned Regional Office of MoEF & CC at Ranchi and Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi / CPCB / SEIAA.
- iv. A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental



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Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.

- v. The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.
- vi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- vii. The Ministry / SEIAA / SEAC may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- viii. The Ministry / SEIAA / SEAC reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- ix. The Environmental Clearance accorded shall be valid for the period of lease of the mine, the PP does not increase production rate and alter lease area during the validity of Environmental Clearance.



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**1. Statutory compliance:**

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (incase of the presence of schedule-I species in the study area)
- iv. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- v. 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.
- vi. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

**2. 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 (G.S.R 277 (E) dated 31<sup>st</sup> March 2012 (applicable to Coke oven)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 specifications through laboratories recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.



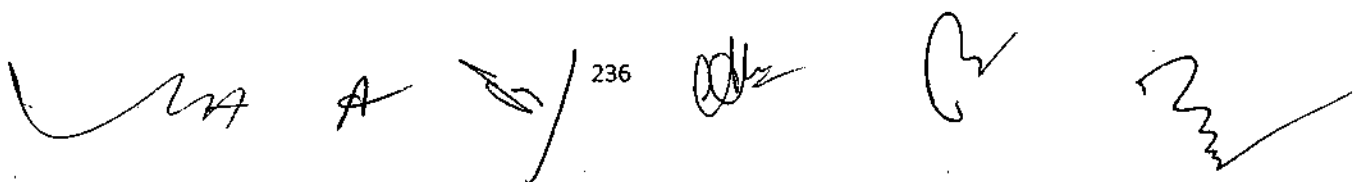
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- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.
- iii. The project proponent shall install system carryout to Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions. (case to case basis small plants: Manual; Large plants: Continuous)
- iv. The cameras shall be installed at suitable locations for 24X7 recording of battery emissions on the both sides of coke oven batteries and videos shall be preserved for at least one-month recordings.
- v. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.
- vi. 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.
- vii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- viii. The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
- ix. Secondary emission control system shall be provided at SMS Converters.
- x. Pollution control system in the steel plant shall be provided as per the CREP Guidelines of CPCB.
- xi. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- xii. 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.
- xiii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
- xiv. Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility).
- xv. Land-based APC system shall be installed to control coke pushing emissions.

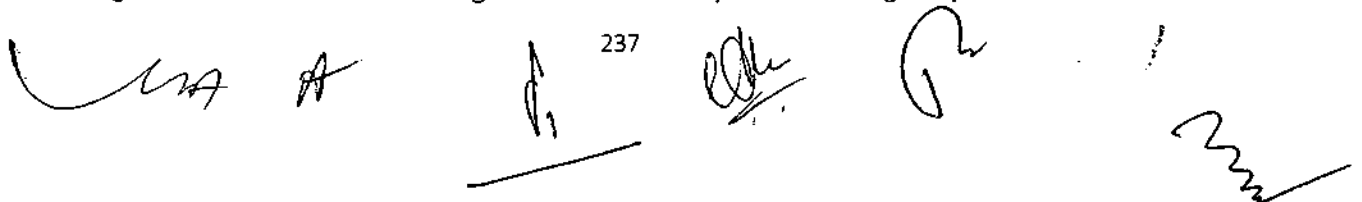
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- xvi. Monitor CO, HC and O<sub>2</sub> in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.
- xvii. Vapour absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens.
- xviii. In case concentrated ammonia liquor is incinerated, adopt high temperature incineration to destroy Dioxins and Furans. Suitable NO<sub>x</sub> control facility shall be provided to meet the prescribed standards.
- xix. The coke oven gas shall be subjected to desulphurization if the sulphur content in the coal exceeds 1%.
- xx. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- xxi. Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.
- xxii. The project proponent shall install Dry Gas Cleaning Plant with bag filter for Blast Furnace and SMS converter. (to be decided on case to case basis depending on type and size of plant)
- xxiii. Dry quenching (CDQ) system shall be installed along with power generation facility from waste heat recovery from hot coke.

### 3. 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 (Integrated iron & Steel); G.S.R 414 (E) dated 30<sup>th</sup> May, 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7<sup>th</sup> 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.
- 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.

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- iv. The project proponent shall provide appropriate ETP for effluents discharged from coke oven and by-product to meet the standards prescribed in G.S.R 277 (E) 31<sup>st</sup> March 2012 (applicable to Coke oven plants) as amended from time to time.
- v. Adhere to 'Zero Liquid Discharge'.
- vi. Sewage Treatment Plant shall be provided for treatment of domestic waste water to meet the prescribed standards.
- 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. Treated water from ETP of COBP shall not be used for coke quenching.
- x. Water meters shall be provided at the inlet to all unit processes in the steel plants.
- xi. 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.

#### 4. 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

#### 5. Energy Conservation measures

- i. The project proponent shall provide TRTs to recover energy from top gases of Blast Furnaces.
- ii. Coke Dry Quenching (CDQ) shall be provided for coke quenching for both recovery and non-recovery type coke ovens.
- iii. Waste heat shall be recovered from Sinter Plants coolers and Sinter Machines.
- iv. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.
- v. Use hot charging of slabs and billets/blooms as far as possible.
- vi. Waste heat recovery systems shall be provided in all units where the flue gas or process gas exceeds 300°C.
- vii. Explore feasibility to install WHRS at Waste Gases from BF stoves; Sinter Machine; Sinter Cooler, and all reheating furnaces and if feasible shall be installed.
- viii. Restrict Gas flaring to < 1%.

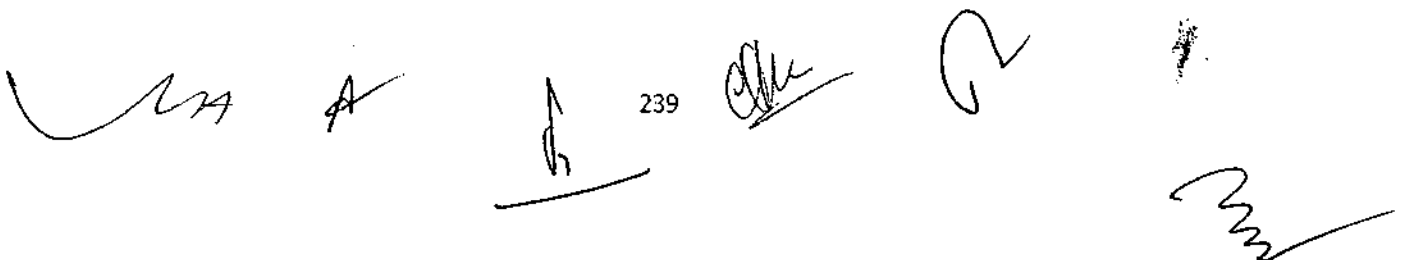
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- ix. Provide solar power generation on rooftops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.
- x. Provide LED lights in their offices and residential areas.
- xi. Ensure installation of regenerative type burners on all reheating furnaces.

## 6. Waste management

- i. An attrition grinding unit to improve the bulk density of BF granulated slag from 1.0 to 1.5 Kg/l shall be installed to use slag as river sand in construction industry.
- ii. In case of Non-Recovery coke ovens, the gas main carrying hot flue gases to the boiler, shall be insulated to conserve heat and to maximise heat recovery.
- iii. Tar Sludge and waste oil shall be blended with coal charged in coke ovens (applicable only to recovery type coke ovens).
- iv. Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.
- v. Waste recycling Plant shall be installed to recover scrap, metallic and flux for recycling to sinter plant and SMS.
- vi. Used refractories shall be recycled as far as possible.
- vii. SMS slag after metal recovery in waste recycling facility shall be conditioned and used for road making, railway track ballast and other applications. The project proponent shall install a waste recycling facility to recover metallic and flux for recycle to sinter plant. The project proponent shall establish linkage for 100% reuse of rejects from Waste Recycling Plant.
- viii. 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.
- ix. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area.
- x. The waste oil, grease and other hazardous waste like acidic sludge from pickling, galvanising, chrome plating mills etc. shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016. Coal tar sludge / decanter shall be recycled to coke ovens.
- xi. 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)*

## 7. Green Belt

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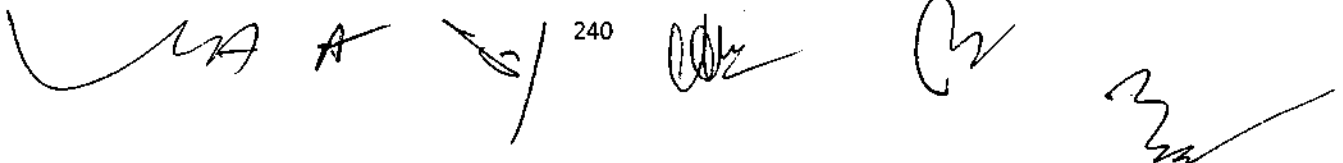
- i. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
- ii. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

#### 8. 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.
- iv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

#### 9. 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 1<sup>st</sup> May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental/forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report 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

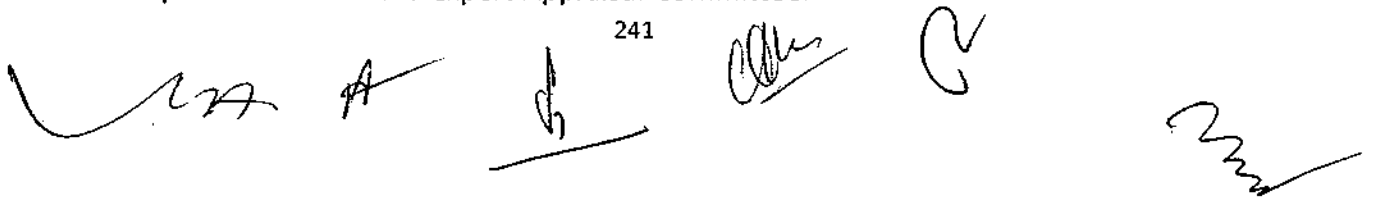
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purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.





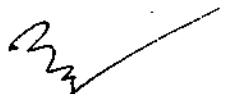
- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- vi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Coke Oven plants shall be implemented.

#### 10. 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.
- 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 EIAEMP 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 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.
- 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. In view of MoEF & CC O.M. No.- 22-27/2015-IA-III, dated- 12.04.2016 The Environmental Clearance accorded shall be valid for a period of Seven (07) years. In this case validity of Environmental Clearance period start from 01.09.2015. The PP shall not increase production rate and make modifications in process during the validity of Environmental Clearance.

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

**A. Standard Terms of Reference**

**1. Executive Summary**

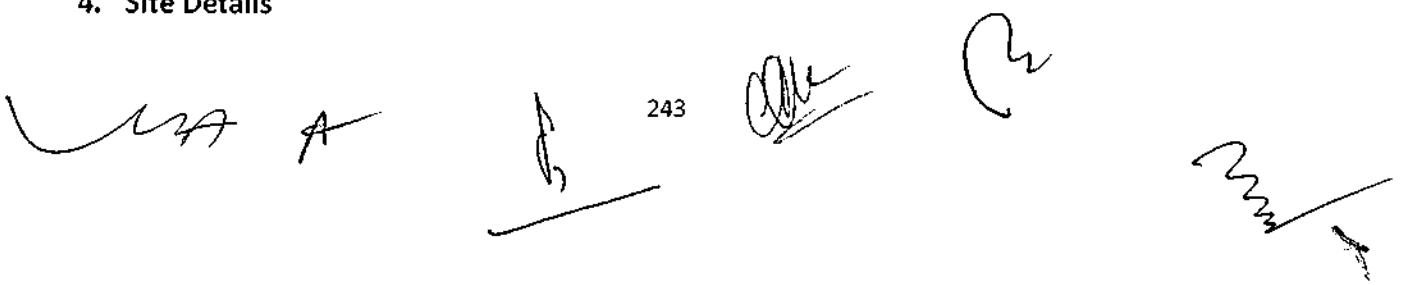
**2. Introduction**

- 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 and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing / existing operation of the project from SPCB shall be attached with the EIA-EMP report.
  - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification, 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

**4. Site Details**

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

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

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

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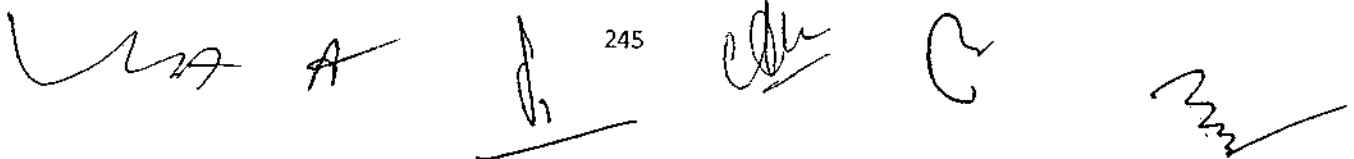
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

#### 6. Environmental Status

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

#### 7. Impact and Environment Management Plan



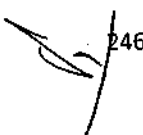



- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts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

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- ii. Water Quality modelling - in case of discharge in water body
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor- cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control.
- vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

#### 8. Occupational health

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

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

**9. Corporate Environment Policy**

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

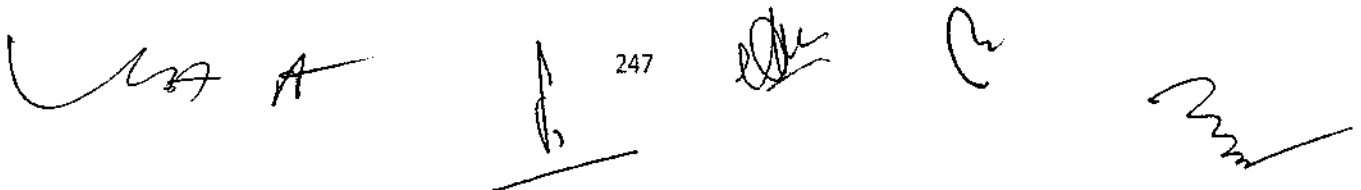
**11. Enterprise Social Commitment (ESC)**

- i. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.
- 12.** Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

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

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

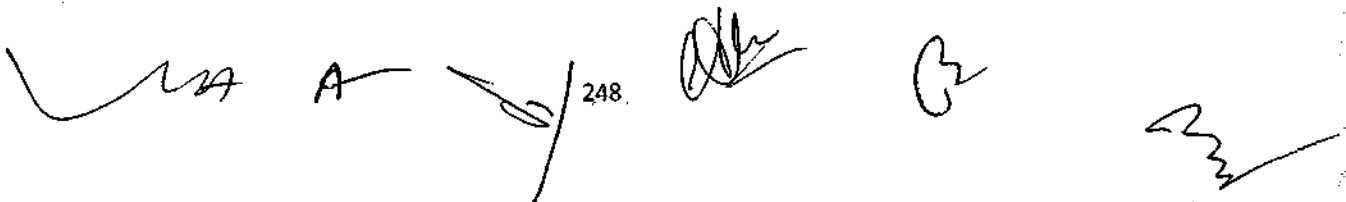
1. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs & outputs (material and energy balance).

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2. Details on blast furnace/ open hearth furnace/ basic oxygen furnace/ladle refining, casting and rolling plants etc.
3. Details on installation/activation of opacity meters with recording with proper calibration system
4. Details on toxic metals including mercury, arsenic and fluoride emissions
5. Details on stack height requirement for integrated steel
6. Details on ash disposal and management -Non-ferrous metal
7. Complete process flow diagram describing production of lead/zinc/copper/ aluminium, etc.
8. Raw materials substitution or elimination
9. Details on smelting, thermal refining, melting, slag fuming, and Waelz kiln operation
10. Details on Holding and de-gassing of molten metal from primary and secondary aluminum, materials pre-treatment, and from melting and smelting of secondary aluminium
11. Details on solvent recycling
12. Details on precious metals recovery
13. Details on composition, generation and utilization of waste/fuel gases from coke oven plant and their utilization.
14. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
15. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
16. Trace metals in waste material especially slag.
17. Plan for trace metal recovery
18. Trace metals in water

**C. Other**

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

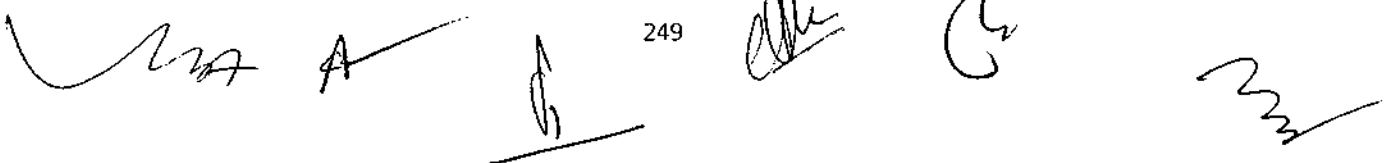
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**I. Statutory compliance:**

- 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. 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.
- v. 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.
- vi. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

**II. Air quality monitoring and preservation**

- i. The project proponent shall 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 31<sup>st</sup> 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 (e.g. PM10 and PM25 in reference to PM emission, and SO2 and NOx in reference to

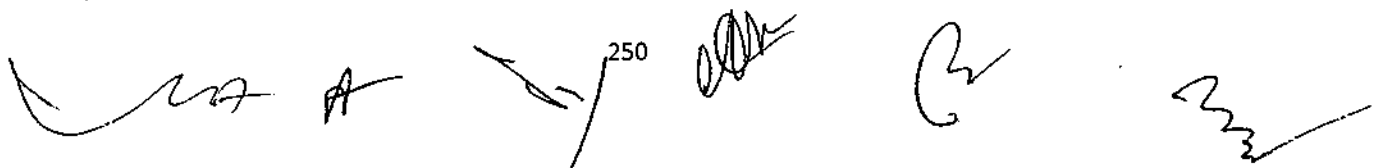
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SO<sub>2</sub> and NO<sub>x</sub> emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions. (case to case basis small plants: 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

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the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.

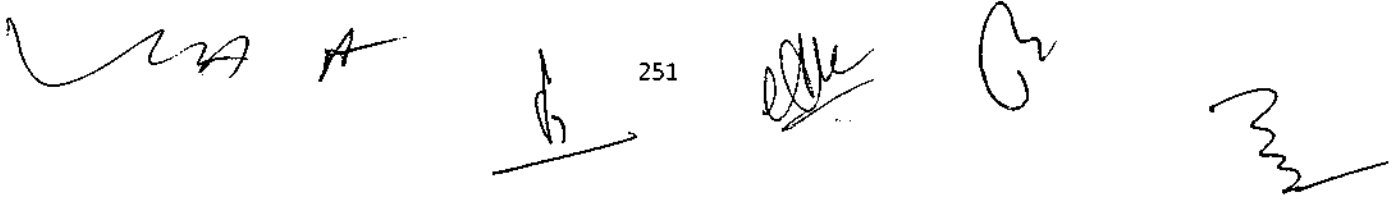
- iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- iv. Adhere to 'Zero Liquid Discharge'.
- v. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- vi. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31<sup>st</sup> 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.

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- 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.

#### 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

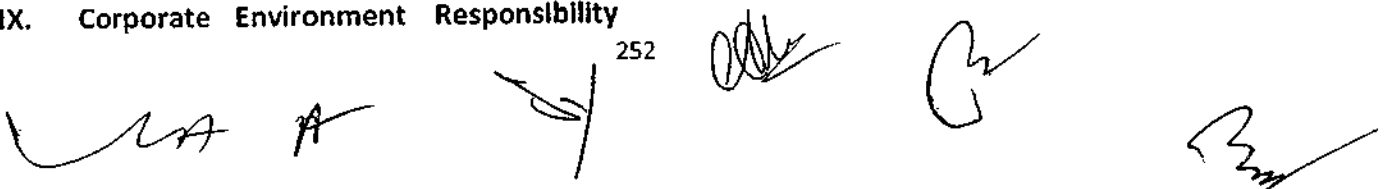
- i. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
- ii. The project proponent shall prepare GHG emissions inventory for the plant and shall 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

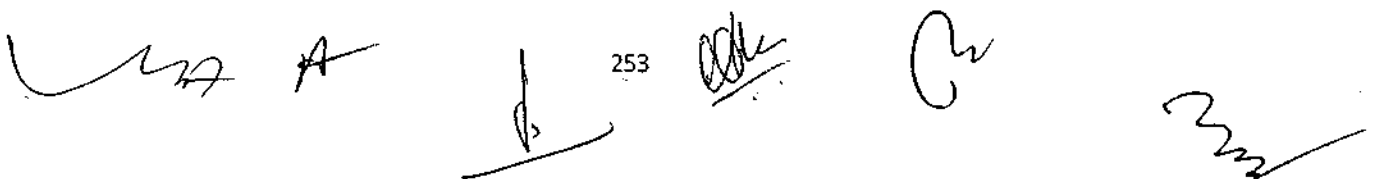
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- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1<sup>st</sup> May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry / Regional Office along with the Six Monthly Compliance Report.
- 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.

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- 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.
- 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.

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- 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.
- 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. In view of MoEF & CC O.M. No.- 22-27/2015-IA-III, dated- 12.04.2016 The Environmental Clearance accorded shall be valid for a period of Seven (07) years. The PP shall not increase production rate and make modifications in process during the validity of Environmental Clearance.
- 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.

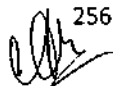
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**I. Statutory Compliance**

- 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



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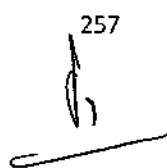




drinking water, medical health care, etc. The housing may be in the form of temporary structures to be removed after completion of the project.

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

## II. Air quality monitoring and preservation

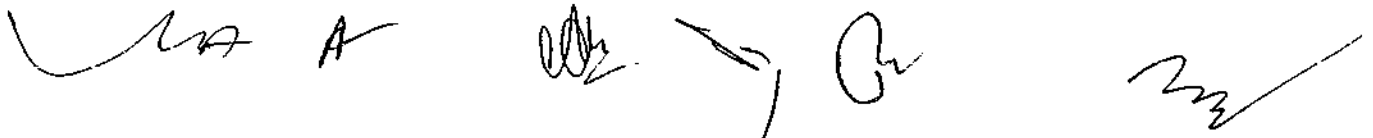
- i. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
- ii. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.



- iii. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM25) covering upwind and downwind directions during the construction period.
- iv. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
- v. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
- vi. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
- vii. Wet jet shall be provided for grinding and stone cutting.
- viii. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- ix. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.
- x. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- xi. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- xii. For indoor air quality the ventilation provisions as per National Building Code of India.

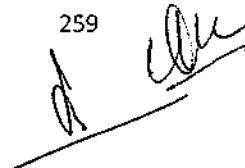
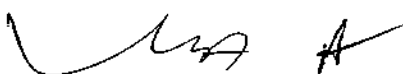
### iii. Water quality monitoring and preservation

- i. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable



urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.

- ii. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- iii. Total fresh water use shall not exceed the proposed requirement as provided in the project details.
- iv. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- v. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
- vi. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- vii. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- viii. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- ix. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- x. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- xi. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
- xii. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In



areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.

- xiii. All recharge should be limited to shallow aquifer.
- xiv. No ground water shall be used during construction phase of the project.
- xv. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.
- xvi. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- xvii. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.
- xviii. No sewage or untreated effluent water would be discharged through storm water drains.
- xix. Onsite sewage treatment of capacity of treating 100% waste water to be installed based on the MBBR/MBR/SBR technology. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.
- xx. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- xxi. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

#### IV. Noise monitoring and prevention

- i. Ambient noise levels shall conform to residential area/commercial area/industrial area/silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall

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be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

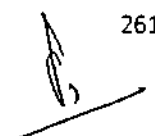
- ii. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- iii. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

#### V. Energy Conservation measures

- i. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.
- ii. Outdoor and common area lighting shall be LED.
- iii. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- iv. Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
- v. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.
- vi. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

#### VI. Waste Management

- i. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.



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- ii. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- iii. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
- iv. Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
- v. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
- vi. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- vii. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.
- viii. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25<sup>th</sup> January, 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.

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- iii. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.
- iv. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

#### **VIII. Transport**

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

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

- i. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
- ii. For indoor air quality the ventilation provisions as per National Building Code of India.

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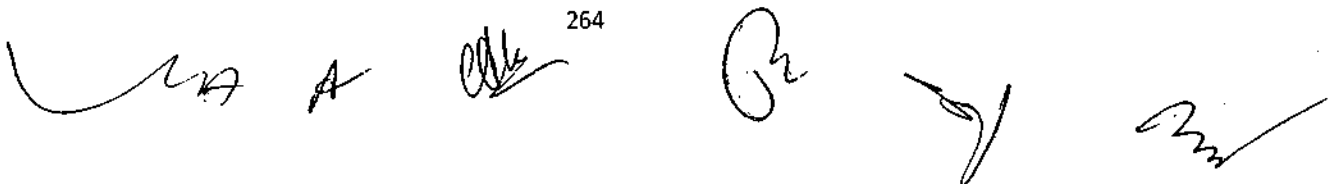

- iii. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- iv. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking,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

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

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

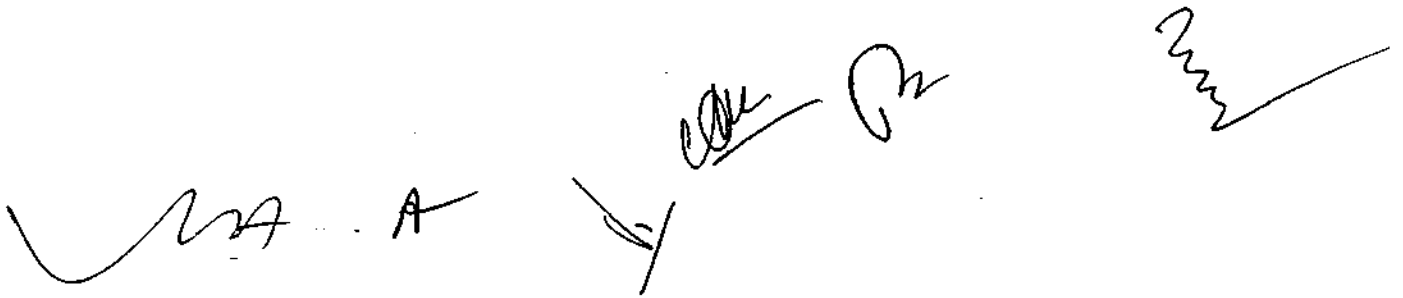
#### **XI. Miscellaneous**

- i. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/SEIAA website where it is displayed.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition



- to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
  - iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
  - v. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
  - vi. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
  - vii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
  - viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
  - ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
  - x. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
  - xi. The Ministry / SEIAA / SEAC may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
  - xii. The Ministry / SEIAA / SEAC reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
  - xiii. It shall be mandatory for the project management to submit six (06) monthly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard copies and soft copies to the regulatory authority concerned Regional Office of MoEF & CC at Ranchi and Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi / CPCB / SEIAA.

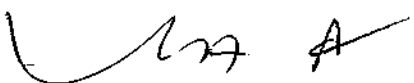
- xiv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.
- xvi. In view of MoEF & CC O.M. No.- 22-27/2015-IA-III, dated- 12.04.2016 The Environmental Clearance accorded shall be valid for a period of Seven (07) years. The PP shall not increase production rate and make modifications in process during the validity of Environmental Clearance.


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

**A. Standard Conditions :**

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



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

**B. Specific Conditions :**

1. The State Govt. / SPCB to take action against the project proponent under the provisions of section 19 of the Environment (Protection) Act, 1986.
2. The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the SEAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the SEAC and approval of the regulatory authority.
3. Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment.
4. Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
5. An assessment of the cumulative impact of all development and increased in habitation being carried out or proposed to be carried out by the project or other agencies in the core area, shall be made for traffic densities and parking capabilities in a 2 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA and the plan to be implemented to the satisfaction of all the concerned state departments and implementing agencies".
6. Management of solid waste and the Construction & Demolition waste for the project vis- a-vis the Solid Waste Management Rules, 2016 and the Construction & Demolition Rules, 2016.
7. Details of all construction input should be furnished for assessment of Ecological damage/Environmental damage.

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

*MA. A*

*B*

*J. [Signature]*

*[Signature]*

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