

**MINUTES OF THE 107<sup>TH</sup> MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC), JHARKHAND HELD ON 16<sup>TH</sup>, 17<sup>TH</sup>, 18<sup>TH</sup>, 19<sup>TH</sup> and 20<sup>TH</sup> AUGUST, 2023.**

The 107<sup>th</sup> meeting of State Level Expert Appraisal Committee (SEAC), Jharkhand was held on 16<sup>th</sup>, 17<sup>th</sup>, 18<sup>th</sup>, 19<sup>th</sup> and 20<sup>th</sup> August, 2023 under the Chairmanship of Shri Ashok Kumar Singh, IFS (Retd.) in the Conference Room at SEAC, Ranchi.

The following members were present:

1. Shri Ashok Kumar Singh, IFS (Retd.) - Chairman
2. Dr. Kirti Avishek - Member
3. Shri Niranjan 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 18<sup>th</sup>, 19<sup>th</sup>, 20<sup>th</sup>, 21<sup>st</sup> and 22<sup>nd</sup> July, 2023. These projects have been put up for discussions. Besides, these Projects, wherein PP's were asked to provide requisite information / clarifications in the earlier meeting of SEAC, were also considered for appraisal. The Project Proponents have been asked to make technical presentation for the appraisal of their projects before the committee.

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

**Day 1 : August 16<sup>th</sup>, 2023 [Wednesday]**

- A. Corrigendum EC letter for Barakotha Stone Mine of M/s Barakotha Stone Mines (Partners : Shri Ajit Anand & Shri Jatu Pahariya), Village : Barakotha, Panchayat : Babupur, Block : Boarijor, P.O. : Lohandia Bazar, P.S. : Lalmatia, Distt. : Godda, Jharkhand (1.008 Ha).

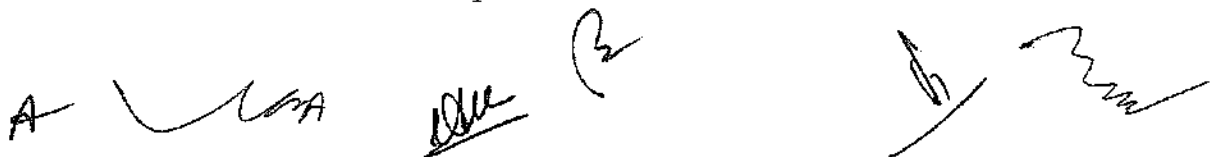
(Proposal No. : SIA/JH/MIN/302720 /2023).

The PA's vide online application no. SIA/JH/MIN/302720 /2023 has requested for necessary correction in Environmental Clearance issued vide letter no. EC/SEIAA/2023-24/2854/2023/158, dated 08.07.2023 with regard to correction in Father name, the corrected Father name is being given below :

Partners : 1. Shri Ajit Anand, S/o : Shri Pramod Bhagat

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/2023-24/2854/2023/158, dated 08.07.2023 shall remain the same.

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## B. Consideration of Proposals

1. Sima Brick Soil Mining of M/s Angad Bricks (Prop. : Shri Niranjan Kumar), Village : Sima, Tehsil : Sadar, Distt. : Chatra, Jharkhand (0.81 Ha).

(Proposal No. : SIA/JH/MIN/ 438447/2023).

Applied Area : 2.00 ACRES (0.81 Ha.)  
 Project Category : B2 – Application for Environment Clearance  
 EC Application for : 1200 cum / year (max)  
 Top Soil: 685 Cum. during plan period.  
 DG Set: Not Required  
 Brick Kiln- Not proposed

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

This is a new project which has been taken for appraisal on 16.08.2023.

### Project and Location Details :

Sl.	Parameter	Details	
1	Project Name	Sima Brick Clay Mine Project Type – Brick Clay	
2	Lessee:	M/S Angad Bricks (Marka-AGB) Proprietor- Shri Niranjan Kumar	
3	Lease Address	Village-Sima, Thana No.- 252, Thana- Sadar, District- Chatra, Jharkhand	
4	Lease Area	Ha: 0.81	Acres: 2.00
5	Type of Land	Non-Forest – Raiyati Land	
6	Project Cost	16.35 Lakhs	
7	EMP Budget	Capital: Rs. 6.50 Lakhs	Recurring: Rs. 2.20 Lakhs/ year
8	CSR / CER Budget	NA	
9	New or Expansion	New	
10	Mineable Reserves	Cu.M.: 9881	Tonnes: NA
11	Mine Life	8 years only.	
12	Manpower	18 Person	
13	Water Requirement	1.98 KLD (Drinking:0.36KLD, Dust Suppression: 1.62 KLD, Plantation: 9.58 KLD)	
14	Water Source	Water will be sourced from near by Abandon Mine and Water Tankers, to be purchased locally for Dust Suppression, Plantation, Drinking and Domestic Consumption.	

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15	DG Set / power	:	Not Required
16	Crusher	:	Not Applicable
17	Nearest Water Body	:	Hiru River – 4.20 km – North Pond – 0.01 km - East
18	Nearest Habitation	:	Sima Village- 170m – North
19	Nearest Rail Station	:	Katkamsandi Railway Station at 14.42 km NE direction.
20	Nearest Airport	:	Gaya Airport, Gaya, 70 km N Direction.
21	Nearest Forest	:	More than 250 m, as per forest division. Letter no – 264 Dt- 25-01-2023
22	Road & Highways	:	Village road 0.00 km East direction MDR (Simaria-Tandwa road) - 0.60 km West

### CO-ORDINATES

Point	Latitude	Longitude
1	24°07'11.36" N	84°54'41.63" E
2	24°07'11.58" N	84°54'36.11" E
3	24°07'12.02" N	84°54'36.03" E
4	24°07'12.09" N	84°54'36.32" E
5	24°07'12.75" N	84°54'36.20" E
6	24°07'12.76" N	84°54'36.67" E
7	24°07'13.24" N	84°54'36.69" E
8	24°07'13.24" N	84°54'37.19" E
9	24°07'13.39" N	84°54'37.17" E
10	24°07'13.20" N	84°54'41.07" E
11	24°07'12.19" N	84°54'41.10" E

### LAND DETAILS :

Khata No.	Plot No.
30	978 (P) & 989 (P)

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**STATUTORY CLEARANCES**

1	LOI / Lease docs	:	Land agreement.
2	CO	:	The CO, Chatra vide letter no. 371, dated 13.04.2023 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Chatra vide memo no. 783, dated 14.07.2023 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 1410, dated 10.07.2023 certified that the proposed project site is outside Eco Sensitive Zone of Lawalong Wildlife Sanctuary.
5	DFO Forest Distance	:	Division Forest Officer, Chatra South Division vide letter no. 264, dated 25.01.2023 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	:	The DC-cum-District Magistrate, Chatra vide letter no. 1230 / Khanan, dated 14.12.2022 has informed that this project is part of District Survey Report (DSR) of Chatra district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	Gram Sabha conducted on 19.07.2023.
8	Mine Plan Approval	:	District Mining Officer, Chatra vide Letter No. 611/Khanan, dated 12.06.2023.

**WORKING DETAILS**

1	Mining Method	:	Open Cast Manual Mining Method
2	Quarry Area	:	Plan period – 0.85 Acre. Conceptual stage – 1.40 Ac.
3	Waste Generation	:	Plan Period : 685 Cum. Conceptual Stage –1,096 Cum. (Plan period – 685 Cum., After Plan period - 411 Cum.)
4	Stripping Ratio	:	NA
5	Working Days	:	200 days/year
6	Benches: size & No	:	1 m x 1 m,
7	Elevation of Mine	:	547 AMSL
8	Ground Level Elevation	:	547 AMSL



9	Ultimate Working Depth	:	546 AMSL
10	Water Table	:	207 AMSL
11	Topography of Mine	:	Flat area
12	Explosive Requirement	:	Not Applicable
13	Diesel/Fuel requirement	:	NA

#### PRODUCTION DETAILS

Year	Production of Recoverable Soil in cum	Production of Bricks Block in no.
1 <sup>st</sup>	1200	600000
2 <sup>nd</sup>	1200	600000
3 <sup>rd</sup>	1200	600000
4 <sup>th</sup>	1200	600000
5 <sup>th</sup>	1200	600000
<b>Total</b>	<b>6000</b>	<b>3000000</b>

#### LAND USE

Sl. No.	Pattern of Utilization	Present/Existing land use pattern in (acres)	Proposed Land use for current plan period (acres)	Land to be used in remaining period of the life of the mine. (acres)	Land used at the conceptual stage ie end of mine life in (acres)
1	Mining Activities	0.00	0.85	0.55	1.40
2	Safety Zone (1m) / (Berm area)	0.00	0.20	0.00	0.20
3	Rest House/ Top soil Storage/ village road safty	0.00	0.40	0.00	0.40
4	Unutilized	2.00	0.55	0.00	0.00
	<b>Total</b>	<b>2.00</b>	<b>2.00</b>	<b>0.55</b>	<b>2.00</b>

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## ENVIRONMENT MANAGEMENT

### Green Belt Development

SL	LOCATION		Area/Length	No of Trees
1	Nearest Villages	:	-	100
2	Haul /Approach Road	:	0.30 Km.	150 Trees both side approach road.

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

### Solid Waste Management

- Top soil Generation will be 685 cum during the plan period. will be utilized for backfilling after end of the quarry, so there is no requirement of waste dumping Plan for this mining plan.

### Water Pollution Control Measures:

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

### Air and Noise Pollution Control Measures:

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

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

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

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**Undertaking submitted affirming:**

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as protecting clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

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 Sima Brick Soil Mining of M/s Angad Bricks (Prop. : Shri Niranjan Kumar), Village : Sima, Tehsil : Sadar, Distt. : Chatra, 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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2. Bada Bararo Stone Mine of M/s Varun Singh Sisodia Pvt. Ltd. (Partners : Shri Varun Singh & Mrs. Yasomati Kumari), Mouza : Bada Bararo, Panchayat : Bada Amarpur, Block : Boarijor, P.O. + P.S. : Raja Bhita (33), Distt. : Godda, Jharkhand (2.55 Ha).

(Proposal No. : SIA/JH/MIN/ 439255/2023).

Applied Area : 6.311 ACRES ( 2.55 Ha.)

Project Category : B1 – Application for ToR (Cluster)

EC Application for : 55446 Cum / year (max)

Overburden: 13486.2 Cum. during plan period.

DG Set: NA

Crusher- Notproposed

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

This is a new project which has been taken for appraisal on 16.08.2023.

**Project and Location Details :**

Sl.	Parameter	Details
1	Project Name	Bada Bararo Stone Mine Project Type – Stone Mine
2	Lessee:	Varun Singh Sisodia Pvt. Ltd. Partners- 1. Shri Varun Singh, 2. Mrs. Yasomati Kumari
3	Lease Address	Village- Bada Bararo, Thana No.- 33, Thana- Raja Bhita, District- Godda, Jharkhand
4	Lease Area	Ha: 2.55                      Acres: 6.31
5	Type of Land	Non-Forest – Raiyati Land
6	Project Cost	91.85 Lakhs
7	EMP Budget	Capital: Rs. - 12.455 Lakhs                      Recurring: Rs. 1.54 Lakhs/ year
8	CSR / CER Budget	NA
9	New or Expansion	New
10	Mineable Reserves	Cu.M.: 258817                      Tonnes: 698805.9 Tonnes
11	Mine Life	5 years only.
12	Manpower	36 Person
13	Water Requirement	17.95 KLD (Drinking:0.54 KLD, Dust Suppression: 4.96 KLD, Plantation:12.45 KLD)
14	Water Source	Water will be sourced from abandoned Mine through Water

*A* *Varun Singh* *Yasomati Kumari* *B* *Sathi Planners Pvt. Ltd.*



			Tanker for Dust Suppression and Plantation and permission from gram panchayat will be taken to fulfill water requirement for mining operation after the grant of Environment clearance.
15	DG Set / power	:	Nil.
16	Crusher	:	Not Applicable
17	Nearest Water Body	:	Sundar Nadi – 3.96 km- SW Sundar Dam – 2.20 km - SW
18	Nearest Habitation	:	Bada Bararo Village – 395 meter NE
19	Nearest Rail Station	:	Godda Railway Station at 27 km SW direction.
20	Nearest Airport	:	Deoghar Airport , 92 km SW Direction.
21	Nearest Forest	:	More than 250 metre DFO Divisional report Ref Letter No-1862, 03-10-2019
22	Road & Highways	:	Pakka road - 0.62 Km in North direction. NH 133 - 11.08 km in West direction.

#### CO-ORDINATES

Geo-Coordinates of all corner points of Demarcated Block Boundary (GPS Co-ordinates) Datum: WGS 84		
Corner Point	Latitude	Longitude
1	24°57'42.66" N	87°25'29.46" E
2	24°57'42.75" N	87°25'29.88" E
3	24°57'35.08" N	87°25'32.62" E
4	24°57'32.18" N	87°25'30.25" E
5	24°57'34.73" N	87°25'29.99" E
6	24°57'32.11" N	87°25'29.02" E
7	24°57'31.58" N	87°25'28.76" E
8	24°57'32.05" N	87°25'26.92" E
9	24°57'35.69" N	87°25'28.94" E
10	24°57'36.29" N	87°25'25.73" E
11	24°57'37.75" N	87°25'28.29" E

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**LAND DETAILS :**

Khata No.	Plot No.
24	341 & 350

**STATUTORY CLEARANCES**

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Godda vide letter no. 2754, dated 16.10.2019.
2	CO	:	The CO, Boarijore vide letter no. 530/Ra, dated 28.09.2019 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Godda vide memo no. 892/M, dated 10.07.2023 certified that 01 other mining lease area (19.83 acre) exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO -cum- Incharge Wildlife Sanctuary, Udhwa (Sahebganj) vide letter no. 1406, dated 28.07.2023 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.
5	DFO Forest Distance	:	Division Forest Officer, Godda Forest Division vide letter no. 1862, dated 03.10.2019 certified that the distance of notified forest is more than 250 m from proposed project site.
6	DSR	:	This project is mentioned in District Survey Report (DSR) of Godda district in Page No. 55 at Sl. No. 06).
7	Gram Sabha	:	Gram Sabha conducted on dated 25.08.2019.
8	Mine Plan Approval	:	Deputy Director Mines, Santhal Pragana Circle, Dumka vide Memo No. 69/DDM, dated 19.02.2020.

**WORKING DETAILS**

1	Mining Method	:	Opencast Mechanized Mining
2	Quarry Area	:	Plan period – 1.66 Ha. Conceptual stage –1.66 Ha.
3	Waste Generation	:	Plan Period : 13486 Cum. Conceptual Stage – 13486 Cum.
4	Stripping Ratio	:	1:0.05

5	Working Days	:	300 days/year
6	Benches: size & No	:	3m x 3m, No. of benches -9
7	Elevation of Mine	:	207 – 205 AMSL
8	Ground Level Elevation	:	205 AMSL
9	Ultimate Working Depth	:	181 AMSL
10	Water Table	:	121 MSL and
11	Topography of Mine	:	Gently sloping area
12	Explosive Requirement	:	78 Kg Slurry explosives/day
13	Diesel/Fuel requirement	:	HSD – 1125 liters / day (337.5 KL/year)

### PRODUCTION DETAILS

Years	Production In Cum/Year	O.B Production in cum. /Year	Production In Tons/Year	Bench RL in meters
1st	55446	13486	149704.2	A-B: 150-148 (O.B.) A-B : 148-145 (Stone) C-D: 150 – 148 (O.B) 148 – 145 (Stone) 145 – 142 (Stone)
2nd	54894	0	148213.8	A-B : 145 -142 (Stone) A-B: 142 -139 (Stone) C-D: 145- 142 (Stone) C-D : 142 – 139 (Stone)
3rd	53490	0	144423	A-B : 139 -136 (Stone) A-B: 136 -133 (Stone) C-D: 139- 136(Stone) C-D : 136 – 133 (Stone)
4 <sup>th</sup>	39450	0	106515	A-B : 133 -130 (Stone) A-B: 130 -127 (Stone) C-D: 133- 130(Stone) C-D : 130 – 127 (Stone)
5 <sup>th</sup>	27138	0	73272.6	A-B : 127 -124(Stone) A-B: 124 -121 (Stone) C-D: 127- 124(Stone) C-D : 124– 121 (Stone)
Total	230418	13486	622128.6	Depth – 29 m incl. 2m O.B.

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**LAND USE**

**Existing Land Use pattern**

Category	Area in Ha.
Mining Activites	0.00
Dumping	0.00
Mining Road	0.00
Garland drain	0.00
Green belt/Safety Zone	0.00
Utilized	0.00
Unutilized	2.55
<b>Total</b>	<b>2.55</b>

**Land Use Pattern for Current Plan Period:**

Category	Area in Ha.
Mining Activities	1.66
Office/Store	0.04
Dumping	0.04
Mining Road	0.04
Garland drain	0.02
Green belt/Safety Zone	0.75
Utilized	2.55
Unutilized	0.00
<b>Total</b>	<b>2.55</b>

**Land Use Pattern after Life of the Mine:**

Category	Area in Ha.	Land Usage at Conceptual Stage
Mining Activities + Mining Road	1.70	Water Body
Garland drain	0.02	---
Green belt/Safety Zone + Office + Dump	0.83	Plantation
Utilized	2.55	
Unutilized	0.00	
<b>Total</b>	<b>2.55</b>	

**ENVIRONMENT MANAGEMENT**

**Green Belt Development**

SL	LOCATION	Area/Length	No of Trees
1	Green Belt & Other	: 0.83 Ha	2075

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	reclaimed area			
2	Haul /Approach Road	:	0.62 Km.	414 Trees both side approach road.

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

#### Solid Waste Management

- There is only 13,486 cum overburden will be generated in mining plan period which will be used in maintenance of mine road and village road. O.B. Dump of total area 0.04 Ha. has been proposed.

#### Water Pollution Control Measures:

- Mining operation will be restricted to the depth of 29m from surface level.
- Quality of dug well will be monitored, in order to ensure the quality of water is not affected.

#### Air and Noise Pollution Control Measures:

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

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

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

#### Undertaking submitted affirming:

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

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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.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as protecting clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

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 16, 17, 18, 19 & 20.08.2023, the Committee recommends in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF & CC O.M dated 12.12.18 for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure II.

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3. Dandatand Stone Mine of M/s Mor Mukoot Stone Mines (Partners : (i) Shri Anil Kumar (ii) Shri Sabir Ansari (iii) Shri Ravi Kumar), Village : Dandatand, Thana : Bengabad (366), Block Office : Bengabad, Distt. : Giridih, Jharkhand (0.61 Ha).

(Proposal No. : SIA/JH/MIN/ 436339/2023).

Applied Area :1.51 ACRES ( 0.61 Ha.)  
 Project Category :B2 – Application for Environment Clearance  
 EC Application for : 8360 Cum / year (max)

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Overburden: 14592 Cum. during plan period.

DG Set: NA

Crusher- Not proposed

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

This is a new project which has been taken for appraisal on 16.08.2023.

Project and Location Details :

Sl.	Parameter	Details
1	Project Name	: Dandatand Stone Mine Project Type – Stone Mine
2	Lessee:	: M/S Mor Mukoot Partners- 1. Sri Anil Kumar 2. Sabir Ansari, 3. Sri Ravi Kumar
3	Lease Address	: Village- Dandatand, Thana No.- 366, Thana- Bengabad, District- Giridih, Jharkhand
4	Lease Area	: Ha: 0.61                                  Acres: 1.51
5	Type of Land	: Non-Forest – Raiyati Land
6	Project Cost	: 73.70 Lakhs
7	EMP Budget	: Capital: Rs. 4.18 Lakhs          Recurring: Rs. 1.64 Lakhs/ year
8	CSR / CER Budget	: NA
9	New or Expansion	: New
10	Mineable Reserves	: Cu.M.: 75848                                  Tonnes: 204790
11	Mine Life	: 9 years only.
12	Manpower	: 22 Person
13	Water Requirement	: 6.11 KLD (Drinking:0.33 KLD, Dust Suppression: 1.6 KLD, Plantation:4.18 KLD
14	Water Source	: Water will be sourced from abandoned Mine through Water Tanker for Dust Suppression and Plantation and permission from gram panchayat will be taken to fulfill water requirement for mining operation after the grant of Environment clearance.
15	DG Set / power	: Nil.
16	Crusher	: Not Applicable
17	Nearest Water Body	: Chorgatwa Nadi – 5.24 km- WEST
18	Nearest Habitation	: Phitkoria Village – 488 meter East

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19	Nearest Rail Station	:	New Giridih Railway station, at 7.92 km SW.
20	Nearest Airport	:	Deoghar, Airport at 38.82 km North-East Direction.
21	Nearest Forest	:	More than 250 DFO Divisional report Ref Letter No- 753, 23-02-2023
22	Road & Highways	:	NH -114A (Giridih-Dumka Road) at 1.77 km West Direction,

#### CO-ORDINATES

Point	Latitude	Longitude
1	24 <sup>0</sup> 16'46.748" N	86 <sup>0</sup> 21'54.955" E
2	24 <sup>0</sup> 16'46.469" N	86 <sup>0</sup> 21'55.846" E
3	24 <sup>0</sup> 16'45.884" N	86 <sup>0</sup> 21'57.265" E
4	24 <sup>0</sup> 16'45.292" N	86 <sup>0</sup> 21'58.703" E
5	24 <sup>0</sup> 16'44.546" N	86 <sup>0</sup> 22'00.723" E
6	24 <sup>0</sup> 16'44.163" N	86 <sup>0</sup> 22'01.987" E
7	24 <sup>0</sup> 16'44.010" N	86 <sup>0</sup> 22'01.833" E
8	24 <sup>0</sup> 16'43.299" N	86 <sup>0</sup> 22'01.562" E
9	24 <sup>0</sup> 16'43.680" N	86 <sup>0</sup> 22'00.515" E
10	24 <sup>0</sup> 16'44.236" N	86 <sup>0</sup> 21'58.991" E
11	24 <sup>0</sup> 16'44.918" N	86 <sup>0</sup> 21'57.121" E
12	24 <sup>0</sup> 16'45.428" N	86 <sup>0</sup> 21'55.724" E
13	24 <sup>0</sup> 16'45.916" N	86 <sup>0</sup> 21'54.384" E

#### LAND DETAILS :

Khata No.	Plot No.
04	80 (P)

#### STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Giridih vide letter no. 605/M, dated 27.05.2023.
2	CO	:	The CO, Bengabad vide letter no. 307, dated 13.04.2023 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in Khatiyani.
3	DMO	:	DMO, Giridih vide memo no. 634/M, dated 05.06.2023 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Hazaribag vide letter no. 587, dated 22.03.2023 certified

*(Handwritten signatures and initials)*



		that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Forest Distance	: Division Forest Officer, Giridih East Forest Division vide letter no. 753, dated 23.02.2023 certified that the distance of notified forest is more than 500 m from proposed project site.
6	DSR	: The DC-cum-District Magistrate, Giridih vide letter no. 756 / M, dated 10.07.2023 has informed that this project is part of District Survey Report (DSR) of Giridih district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	: Gram Sabha conducted on dated 02.03.2023.
8	Mine Plan Approval	: District Mining Office, Giridih vide Letter No. 811/M, dated 28.07.2023.

### WORKING DETAILS

1	Mining Method	: Opencast Mechanized Mining
2	Quarry Area	: Plan period - 0.26 Ha. Conceptual stage -0.26 Ha.
3	Waste Generation	: Plan Period : 14592 Cum. Conceptual Stage -14592 Cum.
4	Stripping Ratio	: 1:0.12
5	Working Days	: 300 days/year
6	Bench: size & No	: 3m x 3m, No. of benches -2
7	Elevation of Mine	: 428 – 426 AMSL
8	Ground Level Elevation	: 424 AMSL
9	Ultimate Working Depth	: 420 AMSL
10	Water Table	: 298 MSL and
11	Topography of Mine	: Gently sloping area
12	Explosive Requirement	: 1.68 Kg Slurry explosives/day
13	Diesel/Fuel requirement	: HSD – 732 liters / day (219.6 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

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1 <sup>st</sup>	8360	28	14592	22572	75	A-A': 345-344 (OB) A-A': 344-341 (Stone)
2 <sup>nd</sup>	8360	28	-	22572	75	A-A': 344-341 (Stone)
3 <sup>rd</sup>	8360	28	-	22572	75	A-A': 344-341 (Stone)
4 <sup>th</sup>	8360	28	-	22572	75	A-A': 344-341 (Stone)
5 <sup>th</sup>	8360	28	-	22572	75	A-A': 341-337 (Stone)
Total	41800		14592	112860		Depth- 7metre O.B.- 1 metre

## LAND USE

### Existing Land Use pattern

SL	Pattern	Existing Land Use (Ha)
1	Mining Area	0.00
2	Road	0.00
3	Garland Drain	0.00
4	Green belt /Safety Zone	0.00
5	Stone Stock yards	0.00
6	Unutilized	3.00
	<b>TOTAL</b>	<b>0.61</b>

### Land Use Pattern for Current Plan Period:

SL	Pattern	Land Use (Ha)
1	Mining Area	0.26
2	Road	0.01
3	Garland Drain	0.04
4	Settling Pond	0.02
5	Green belt /Safety Zone	0.28
6	Unutilized	0.00
	<b>TOTAL</b>	<b>0.61</b>

### Land Use Pattern after Life of the Mine:

SL	Pattern	Proposed Land Use at End of Life of Mine (Ha)	Land Usage at Conceptual Stage
1	Mining Area	0.26	Water Body

*A* *WMA* *CDMS* *B* *↓* *new*

2	Road	0.01	-
3	Garland Drain	0.04	-
4	Settling Pond	0.02	-
5	Green belt /Safety Zone	0.28	Plantation
6	Unutilized	0.00	-
	<b>TOTAL</b>	<b>0.61</b>	<b>-</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development

SL	LOCATION	Area/Length	No of Trees
1	Green Belt & Other reclaimed area	: 0.28 Ha	700
2	Haul /Approach Road	: 0.10 Km.	136 Trees both side approach road. (Two Row Plantation)

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

### Solid Waste Management

- Overburden Generation will be 14592 cum during the plan period. OB will be utilized for internal mine road construction & berm along the approach road construction & maintenance, so there is no requirement of waste dumping Plan for this mining plan.

### Water Pollution Control Measures:

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

### Air and Noise Pollution Control Measures:

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

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

*A* *U* *RSK* *R* *S* *RSK*

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

**Undertaking submitted affirming:**

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as protecting clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

A complaint letter dated 28.06.2023 from Shri Gautam Singh, Village : Ojhadih, Distt. : Deoghar addressed to the Member Secretary, SEIAA, Jharkhand (forwarded to SEAC vide memo no. 185, dated 10.07.2023) has been received on 03.07.2023 addressing the following allegations :

- i. One private pond was in existence on the same plot where the mining is proposed.
- ii. One High Voltage Transmission Line of DVC is passing at a distance of 50 ft from the proposed ML Area.
- iii. One water reservoir exists adjacent to the proposed ML Area.
- iv. One Muslim Dominated Area exists at a distance of 500 m from the proposed ML Area.

The bottom of the page features several handwritten signatures and initials. From left to right, there is a signature that appears to be 'A', followed by a signature that looks like 'MA', then a signature that looks like 'DM', a large stylized letter 'B', a signature that looks like 'H', and finally a signature that looks like 'M'. There are also some scribbles and marks around these signatures.

Another letter dated 04.08.2023 from the same complainant has been addressed to the Hon'ble Chief Minister, Jharkhand with copy to Member Secretary, SEIAA, Jharkhand on the following issues :

- i. One habitation exists at the distance of 250 m with about 100 households.
- ii. One High Voltage Transmission line of 220 KV is passing at a distance of 50 ft from the proposed ML Area.
- iii. One check dam exists at a distance of Zero meter from the proposed ML Area.
- iv. One private pond was in existence on the same plot where the mining is proposed.

The Committee took a serious view of the complaint and examined all the points of both the complaints with the help of High Resolution Satellite Images. The following are the finding of the Committee:

- i. The High Voltage Transmission line being referred to is at a distance of more than 1 KM from proposed ML Area.
- ii. There is no existence of any check dam and water body within a distance of 500 meter from proposed ML Area.
- iii. There is no habitation within a distance of 500 m from proposed ML Area.
- iv. There is no evidence of existence of any pond on the same plot where the mining area is proposed.

The Committee concluded that the allegation in both the complaints are not correct. The findings of the Committee are similar to what is stated in the certificate of CO, Bengabad issued vide letter no. 307, dated 13.04.2023.

An affidavit dated 16.08.2023 executed by the PAs before the Notary Public, Ranchi has been submitted, wherein it is clearly stated that all the allegation made in the complaint are wrong and without any basis.

A Gram Sabha was conducted on 10.08.2023 on the same issues and their statements are in concurrence with the statements of the affidavit.

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 Dandatand Stone Mine of M/s Mor Mukoot Stone Mines (Partners : (i) Shri Anil Kumar (ii) Shri Sabir Ansari (iii) Shri Ravi Kumar), Village : Dandatand, Thana : Bengabad (366), Block Office : Bengabad, Distt. : Giridih, Jharkhand (0.61 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 in black ink. From left to right, there is a simple letter 'A', a signature that appears to be 'LMA', a signature that looks like 'RANU', a large stylized 'C' or 'R' mark, and two more signatures on the right side, one of which is a cursive signature.

4. Tantri Stone Mine of M/s Jugnu Construction Company, Village : Tantri, P.O. + P.S. : Jaridih (06), Anchal : Jaridih, Distt. : Bokaro, Jharkhand (1.70 Ha).

(Proposal No. : SIA/JH/MIN/ 438951/2023).

Applied Area :4.21 ACRES ( 1.70 Ha.)  
 Project Category :B2 – Application for Environment Clearance (New EC)  
 EC Application for : 10212 Cum / year (max)  
 Overburden: 5202 Cum. during plan period.  
 DG Set: NA  
 Crusher- Notproposed

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

This is a new project which has been taken for appraisal on 16.08.2023.

**Project and Location Details:**




Sl.	Parameter	Details
1	Project Name	Jugnu Stone Mine Project Type – Stone Mine
2	Lessee:	<b>M/S JUGNU CONSTRUCTION COMPANY PARTNER-</b> (1) Sri Jwala Singh, (2) Shri Ajay Tiwari, (3) Sri Lalan Kumar Singh, (4) Shri Sudarshan Tiwari, (5) Shri Rahul Goyal, (6) Shri Pawan Kumar Singh
3	Lease Address	Village- Tantri, Thana- Jaridih, District- Bokaro, Jharkhand
4	Lease Area	Ha: 1.70      Acres: 4.21
5	Type of Land	Non-Forest – Raiyati Land
6	Project Cost	90.20 Lakhs
7	EMP Budget	Capital: Rs. – 10.155 Lakhs      Recurring: Rs. 1.74 Lakhs/ year
8	CSR / CER Budget	NA
9	New or Expansion	New
10	Mineable Reserves	Cu.M.: 72735      Tonnes: 196385 Tonnes
11	Mine Life	8.40 say 9 years only.
12	Manpower	17 Person
13	Water Requirement	15.37 KLD (Drinking:0.25 KLD, Dust Suppression: 4.96 KLD, Plantation:10.16 KLD
14	Water Source	Water will be sourced from abandoned Mine through Water

*(Handwritten signatures and initials)*

			Tanker for Dust Suppression and Plantation and permission from gram panchayat will be taken to fulfill water requirement for mining operation after the grant of Environment clearance.
15	DG Set / power	:	Nil.
16	Crusher	:	Not Applicable
17	Nearest Water Body	:	Damodar River – 0.071 km- N Nala – 0.026 km - W
18	Nearest Habitation	:	Tantri Village
19	Nearest Rail Station	:	Bhandaridah Railway Station at 1.55 km NE direction
20	Nearest Airport	:	Birsa Munda Airport, Ranchi, 125 km SW Direction.
21	Nearest Forest	:	More than 250 DFO Divisional report Ref Letter No- 709, 12-03-2022
22	Road & Highways	:	Dumri-Bermo-Jaina Road - 0.31 Km in South direction. NH-320 (Ramgarh-Boakro Road) - 8.38 KM in South direction

#### CO-ORDINATES

Geo-Coordinates of all corner points of Demarcated Block Boundary (GPS Co-ordinates) Datum: WGS 84		
Corner Point	Latitude	Longitude
1	23° 44' 48.09999868" N	086° 02' 39.50000165" E
2	23° 44' 47.17394261" N	086° 02' 41.11012106" E
3	23° 44' 46.95259677" N	086° 02' 41.93373149" E
4	23° 44' 46.82697364" N	086° 02' 41.98616846" E
5	23° 44' 46.49932776" N	086° 02' 42.91558675" E
6	23° 44' 44.37496677" N	086° 02' 42.71384724" E
7	23° 44' 41.46444098" N	086° 02' 42.43745215" E
8	23° 44' 38.71696544" N	086° 02' 42.17654626" E
9	23° 44' 35.46607848" N	086° 02' 41.86783260" E
10	23° 44' 35.50710357" N	086° 02' 41.66922207" E
11	23° 44' 35.77087418" N	086° 02' 40.97081538" E
12	23° 44' 36.55902370" N	086° 02' 39.39987476" E
13	23° 44' 37.00686893" N	086° 02' 39.41679309" E
14	23° 44' 37.66846262" N	086° 02' 39.57198936" E
15	23° 44' 37.99494862" N	086° 02' 39.80034820" E
16	23° 44' 37.70036001" N	086° 02' 40.36683195" E
17	23° 44' 38.28033536" N	086° 02' 41.06478542" E

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18	23° 44' 39.19553368" N	086° 02' 41.31949355" E
19	23° 44' 39.43231414" N	086° 02' 41.47818676" E
20	23° 44' 39.54924827" N	086° 02' 41.23351609" E
21	23° 44' 40.23591206" N	086° 02' 41.27908867" E
22	23° 44' 40.23987505" N	086° 02' 41.99145855" E
23	23° 44' 40.61034044" N	086° 02' 42.09534745" E
24	23° 44' 40.92958658" N	086° 02' 41.69097748" E
25	23° 44' 41.47553961" N	086° 02' 41.66570422" E
26	23° 44' 42.74442114" N	086° 02' 41.57945983" E
27	23° 44' 42.67212815" N	086° 02' 41.38991321" E
28	23° 44' 42.88177568" N	086° 02' 41.17666861" E
29	23° 44' 42.91069148" N	086° 02' 40.73439067" E
30	23° 44' 43.03539319" N	086° 02' 40.37826325" E
31	23° 44' 44.38606959" N	086° 02' 40.41127973" E
32	23° 44' 45.57034848" N	086° 02' 40.29134713" E
33	23° 44' 45.14963424" N	086° 02' 41.58655943" E
34	23° 44' 44.93189193" N	086° 02' 41.66585229" E
35	23° 44' 44.83697699" N	086° 02' 41.91852098" E
36	23° 44' 45.71187825" N	086° 02' 41.89142806" E
37	23° 44' 46.42801012" N	086° 02' 41.98129636" E
38	23° 44' 45.58607206" N	086° 02' 41.36808859" E
39	23° 44' 45.78301769" N	086° 02' 40.10781275" E
40	23° 44' 46.76490380" N	086° 02' 39.71316133" E

**LAND DETAILS :**

Khata No.	Plot No.
147	03, 05, 06 (P), 20 (P) & 08 (P)
148	19 (P)
145	22

**STATUTORY CLEARANCES**

1	LOI / Lease docs	:	The Letter of Intent (Loi) has been issued by District Mining Officer, Bokaro vide memo no. 887/Khanan, dated 29.03.2022.
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*A* *WMA* *WMA* *(B)* *WMA* *WMA*



2	CO	: The CO, Jaridih (Bokaro) vide letter no. 130, dated 17.02.2022 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyon & Register II. : During appraisal KML file was seen which shows that a Nallah & Damodar River within 500 m from the proposed mine lease area. Therefore, PAs have submitted an EMP for protection of the Nallah & Damodar River as required during appraisal.
3	DMO	: DMO, Bokaro vide memo no. 1045/Khanan, dated 28.04.2022 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	: DFO, Wildlife Hazaribag vide letter no. 446, dated 07.03.2022 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Forest Distance	: Division Forest Officer, Bokaro Forest Division vide letter no. 709, dated 12.03.2022 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
6	DSR	: This project is mentioned in District Survey Report (DSR) of Bokaro district in Page No. 67 at Sl. No. 18).
7	Gram Sabha	: Gram Sabha conducted on dated 01.11.2021.
8	Mine Plan Approval	: District Mining Office, Bokaro vide Memo No. 1453/M, dated 11.08.2023.

#### WORKING DETAILS

1	Mining Method	: Opencast Mechanized Mining
2	Quarry Area	: Plan period – 0.94 Acre Conceptual stage – 0.94 Acre
3	Waste Generation	: Plan Period : 5202 Cum. Conceptual Stage – 5202 Cum.
4	Stripping Ratio	: 1:0.12
5	Working Days	: 300 days/year
6	Benches: size & No	: 6m x 6m, No. of benches -4
7	Elevation of Mine	: 246 - 244 AMSL
8	Ground Level Elevation	: 244 AMSL
9	Ultimate Working Depth	: 227 AMSL
10	Water Table	: 139 AMSL and

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11	Topography of Mine	:	Gently sloping area
12	Explosive Requirement	:	7.5 Kg Slurry explosives/day
13	Diesel/Fuel requirement	:	HSD – 620 liters / day (186 KL/year)

#### PRODUCTION DETAILS

Years	Production In Cum/Year	O.B Production in cum. /Year	Production In Tons/Year	Bench RL in meters
1st	8234	2346	22232	B-B': 189-188 (O.B.) B-B': 188-182 (Stone)
2nd	6072	0	16394	B-B': 188-182 (Stone)
3rd	10212	0	27572	B-B': 182-176 (Stone)
4 <sup>th</sup>	10166	0	27448	B-B': 176-170 (Stone) B-B': 170-164 (Stone)
5 <sup>th</sup>	8568	2856	23134	E-E': 190-189 (O.B.) E-E': 189-183 (Stone)
<b>Total</b>	<b>43252</b>	<b>5202</b>	<b>116780</b>	<b>Depth – 25 Metre including 1 m OB</b>

#### LAND USE

##### Existing Land Use pattern

Sl. No.	Pattern of Utilization	Existing land use pattern in (acres)
1	Mining Activities	0
2	Offices/ Store /Magazine etc.	0
3	Dumping	0
4	Mining Road	0
5	Garland drain	0
6	Green belt/Safety Zone	0
7	Unutilized	4.21
<b>Total</b>		<b>4.21</b>

*A* *WAA* *CDM* *B* *BT* *M*

**Land Use Pattern for Current Plan Period:**

Sl. No.	Pattern of Utilization	Proposed Land use for current plan period (acres)
1	Mining Activities	0.94
2	Office	0.09
3	Dumping	0.60
4	Mining Road	0.20
5	Garland drain	0.30
6	Green belt/Safety Zone	1.00
7	Unutilized	1.08
Total		4.21

**Land Use Pattern after Life of the Mine:**

Sl. No.	Pattern of Utilization	Land used at the conceptual stage ie end of mine life in (acres)	Area to be converted in the conceptual period.
1	Mining Activities	0.94	Water body 0.94
2	Offices	0.09	-
3	Dumping	0.60	Plantation
4	Mining Road	0.20	Plantation
5	Garland drain	0.30	-
6	Green belt/Safety Zone	1.00	Plantation
7	Unutilized	1.08	Broken Area
Total		4.21	-

*A* *USA* *CA* *R* *J* *M*

## ENVIRONMENT MANAGEMENT

### Green Belt Development

SL	Location		Area/Length	No of Trees
1	Green Belt & Other reclaimed area	:	0.73 Ha.	1,825
2	Haul /Approach Road	:	0.31 Km.	206 Trees both side approach road.

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

#### Solid Waste Management

- There is only 5202 cum overburden will be generated in mining plan period which will be used in maintenance of mine road and village road. O.B. Dump of total area 0.60 Acre has been proposed.

#### Water Pollution Control Measures:

- Mining operation will be restricted to the depth of 25m from surface level.
- Quality of dug well will be monitored, in order to ensure the quality of water is not affected.

#### Air and Noise Pollution Control Measures:

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

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

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

#### Undertaking submitted affirming:

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.

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- 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.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as protecting clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

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 Tantri Stone Mine of M/s Jugnu Construction Company, Village : Tantri, P.O. + P.S. : Jaridih (06), Anchal : Jaridih, Distt. : Bokaro, Jharkhand (1.70 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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Day 2 : August 17<sup>th</sup>, 2023 [Thursday]

### Consideration of Proposals

1. Residential & Commercial Complex Project "The Emporio" of M/s Alokik Infra Build LLP, Village : Saraidhela, Distt. : Dhanbad, Jharkhand.

(Proposal no. : SIA/JH/INFRA2/ 432689 /2023).

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 reappraisal on 17.08.2023.

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

However, The Honourable Supreme court in its order dated 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 :

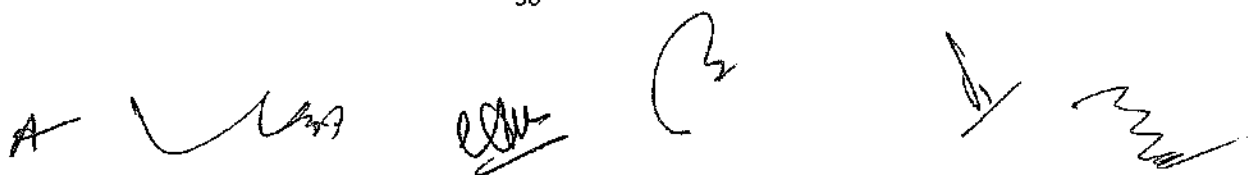
*"The interim order passed by the Madras high Court appears to be misconceived. However, this court is not hearing an Appeal from that interim order. The interim stay passed by the Madras High court can have no application of operations of the Standard Operating Procedure to the projects in territories 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 103<sup>rd</sup> meeting held on 14 - 18.04.2023 and SEIAA, Jharkhand has approved the violation ToRs in 104<sup>th</sup> meeting held on 27<sup>th</sup> & 28<sup>th</sup> April, 2023. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2022-23/2807/2023/85, date 03.05.2023. The final EIA / EMP submitted by PP to SEIAA on 14.08.2023 and which was forwarded to SEAC on 14.08.2023.

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 Commercial and Residential complex "THE EMPORIO" by M/s Alokik Infra Build LLP. Located Village: Saraidhela, District: Dhanbad, Jharkhand. The total plot area of the project is 8454.73 m<sup>2</sup> or 2.089 acres. The Built-up area for project is 29518.04 m<sup>2</sup>.

**Background:**

- The proposed project is construction of Commercial and Residential complex "THE EMPORIO" by M/s Alokik Infra Build LLP. Located Village: Saraidhela, District: Dhanbad, Jharkhand.
- The total plot area of the project is 8454.73 m<sup>2</sup> or 2.089 acres. The Built-up area for project is 29518.04 m<sup>2</sup>. (including FAR + NON FAR + Services)
- The project comprises of Block A : B+LG+G+4; in Block B: S+6, in Block C: S+7 including parking floor, Building, UGT, Guard room , STP & other services.
- Approved building drawing for the project obtained from Dhanbad Municipal Corporation submitted vide 1st approval - DMC/BP/0119/W22/2019 Dated-28.01.2020 & IInd revised approval. DMC/BP/0115/W22/2020/ALT2 Dated – 27.07.2020
- Approx. 65% of construction activities in proposed project has been already done therefore applying for Environment Clearance under category B2 (Violation case) Suo moto.

**Salient features of the project:**

S.No.	Area Details	AREA (m <sup>2</sup> )
1	Total plot area (2.089 acres)	8454.73
2	Net Plot Area	8454.73
3	Permissible Coverage Area (@50 % of Net Plot Area)	4227.37
4	Proposed Coverage Area (@49.01 % of Net Plot Area)	4143.97
5	Permissible FAR Area (2.50)	21136.83
6	Proposed FAR Area	20854.98
7	Proposed Non FAR (Basement and stilt)	4663.06
8	Miscellaneous services (STP, UGT, Guard room etc.)	4000
9	Built up area	29518.04
10	Green Area (@20% of Total Plot Area)	1690.95
11	No. of RWH pits	02 pit
12	Total project cost	Rs. 25 Crore

**Floor Wise Area Details :**

S.No.	Floor Name	Built up Area (m <sup>2</sup> )		
		Block A	Block B	Block C
1.	Basement	2289.98	0.00	0.00

*A* *W* *W* *R* *W* *W*



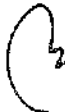


2.	Stilt floor	0.00	966.70	688.14
3.	Lower Ground Floor	2342.30	0.00	0.00
4.	Ground Floor	2489.14	0.00	0.00
5.	First Floor	2344.52	842.81	580.56
6.	Second Floor	2344.00	842.83	580.57
7.	Third Floor	2381.97	842.83	580.57
8.	Fourth Floor	829.71	842.83	580.57
9.	Fifth Floor	0.00	842.83	580.57
10.	Sixth floor	0.00	842.83	580.57
11.	Seventh floor	0.00	0.00	301.22
12.	Terrace floor	0.00	0.00	0.00
<b>Total</b>		<b>15021.62</b>	<b>6023.66</b>	<b>4472.77</b>

**LAND DETAILS :**

Khata no.		Plot no.	
Old	New	Old	New
74	255	2059,2060,2061	404
57		2062	
	3	3305	1956
45	255	2063,1832	404
47	3	3303	1954
110	3	2068	1954,1956
		3304	1955
143	4	2063, 1829, 1831, 1832, 1833	402
104		2054, 2055	348

**Latitude & Longitude:**

Pillar No.	Latitude	Longitude
1	23.811892°	86.454908°
2	23.811999°	86.454913°
3	23.812031°	86.454895°
4	23.812251°	86.454944°
5	23.812298°	86.454936°
6	23.812543°	86.455026°
7	23.812862°	86.455195°
8	23.812900°	86.455118°
9	23.813197°	86.454948°
10	23.813496°	86.455088°
11	23.813408°	86.455430°
12	23.813337°	86.455406°
13	23.813331°	86.455423°

A     



14	23.813310°	86.455413°
15	23.813274°	86.455494°
16	23.813313°	86.455516°
17	23.813285°	86.455678°
18	23.812767°	86.455568°
19	23.812732°	86.455653°
20	23.812191°	86.455475°
21	23.812187°	86.455423°
22	23.812215°	86.455284°
23	23.812086°	86.455259°
24	23.811990°	86.455270°

**Population Break up:**

S. No.	Particulars	No. of Units	PPU/No. of person/m2	Total
1	Residents	74	@6 Person Per Unit	444
	Staff	-	@10 % of residents population	44
	Visitors	-	@10 % of residents population	44
<b>Total Residential Population</b>				<b>532</b>
2	Commercial	12328.66	1 person /6 sqm	2055
	Staff	-	@10% of Commercial population	205
	Visitors	-	@ 90% of Commercial population	1850
<b>Total Commercial Population</b>				<b>2055</b>
<b>Total Population</b>				<b>2587</b>

**Site Surroundings :**

S. No.	Particulates	Name of Places	Distance (Km)	Direction
1.	Nearest Railway Station	Dhanbad Junction	3.56	SW
2.	Nearest Bus Stand	Dhanbad Bus Stand	2.43	WSW
3.	Nearest Town/City/District head quarter	Dhanbad	3.09	SW
4.	Nearest State Highway/Any other road	SH-13 (Jamtara Dhanbad Road)	8.64	NE
5.	Nearest National Highway	Adjacent to NH 18	0.02	S
6.	Nearest School/College	Delhi Public School	0.48	WNW
		P.K. Roy Memorial College	0.74	W
7.	Nearest Temple/Mosque	New Shiv Mandir Saw Para Dhanbad	0.18	WNW
		Koyla Nagar Masjid Kusum Vihar, Murli Nagar Dhanbad	0.89	SE
8.	Nearest Hospital	JIMS Hospital - Private hospital	0.51	W

*A* *WNA* *edw* *R* *WNA*

9.	Nearest Police Station	Saraidhela Police Station	0.50	WSW
10.	Nearest Fire Station	Fire Station Dhanbad – Infront of Randhir Prasad Verma Stadium	2.13	WSW
11.	National Border/State Border	State Border Jharkhand West Bengal	19.63	S
12.	International Border	NA		
13.	Nearest Pond	Karmik Nagar Talab Lohar Kulli Dhanbad	0.19	NW
14.	Nearest River/Nallah/ Canal	Damodar river	13.90	SW
		Katri River	15.16	W
15.	Wild Life Sanctuary & Eco-Sensitive Zone	Parasnath & Topchanchi Wildlife Sanctuary Eco-Sensitive Zone	13.5	N
16.	Reserved Forest/ Protected Forest	Dhangi Reserved forests	3.11	E
		PF	8.03	SE
		PF	9.30	ESE
		PF	7.93	NW
		PF	9.69	WNW
17.	Any other Forest	Amtal Forest Patch	5.27	SSW
18.	Wetland	NA		
19.	Nearest Defence Installation	CRPF Camp Dhanbad - Gobindpur - Baliapur Rd Mohanpur alias Nutandih	8.47	SE
20.	Historical Importance Place	NA		

**Water Requirement:**

The water requirement will be met by Municipal Supply. The total water requirement for operational phase is approx. 86 KLD. Fresh water requirement is approx. 47 KLD.

**Calculations for Daily Water Demand :**

S. No.	Particulars	Occupancy/ Area/ No's	Fresh Water Demand		Treated Water Demand	
			lpcd	Quantity	lpcd	Quantity
1	Residents	444	70	31.08	30	13.32

*A* *WMA* *EDM* *B* *S* *M*

	Staff	44	25	1.1	20	0.8
	Visitors	44	5	0.22	10	0.44
2	Commercial	2055				
	Staff	205	25	5.12	20	4.1
	Visitor	1850	5	9.25	10	18.5
3	Horticulture	1690.95sqm	NIL	NIL	1l/ sqm	1.69
Sub Total				46.77~47		38.85~39
Total Water Requirement						85.62~86

**Summary of Water and Waste water:**

S. No.	Particulars	In KLD
1	Total Water Requirement	86
2	Fresh Water Requirement	47
3	Treated Water	39
4	Wastewater Generated ( 80% of Fresh i.e. 47 KLD + 100% Flushing i.e. 37.16 KLD)	74.76 ~75
5	STP Capacity ( approx. 20% higher than the wastewater generated)	100

**Power Requirement:**

There is requirement of 3000 kVA power supply. 2 DG sets of capacity of 500 kVA 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	444@ 0.5 kg/day	222
	Staff	44@0.25 kg / day	11
	Visitors	44@0.15 kg /day	6.6
2	Commercial		
	Staff	205@0.25 kg / day	51.25
	Visitor	1850@0.15 kg /day	277.5
3	Landscape waste (1690.94 m <sup>2</sup> )	0.41@0.2 kg/acres	0.082
Total Solid Waste Generated			568.43 kg/day

**STATUTORY CLEARANCES :**

1	DFO Forest Distance		DFO, Dhanbad Forest division vide letter no. 1303, dated 23.07.2020 certified that the distance of reserved / protected forest is 800 m from proposed project site.
2	DFO wildlife	:	DFO, Wildlife Hazaribagh vide letter no. 472, dated 04.03.2023 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
3	CO certificate	:	The CO, Dhanbad vide letter no. 231, dated 14.02.2023 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 memo no. 2278/Tech., dated 26.08.2019.
5	Building Plan approval	:	Approved building drawing for the project obtained from Dhanbad Municipal Corporation vide 1 <sup>st</sup> approval vide permit no - DMC/BP/0352/W22/2019, Date 13.02.2020 & 2 <sup>nd</sup> revised vide permit no. DMC/BP/0077/W22/2020, Date 27.07.2020.
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.

On the basis of above the State Level Expert Appraisal Committee (SEAC), Jharkhand recommended an amount of rupees 69.5625 Lakh as per CPCB guidelines towards remediation plan and natural & community resource augmentation plan to be spent within a period 03 years. The details of summary of Natural resource and Environmental / Ecological Damage assessment with budgetary provision for expenditure under the below mention head for remediation :-

S. No	Environment Aspects	Cost Analysis	Capital cost	
1.	AIR ENVIRONMENT	Afforestation/Social Forestry through DFO, Dhanbad under clean Air Program	20	Lakhs
2	ENERGY CONSERVATION	Solar panel installation/solar street lightning in the community land for grid supply	10	Lakhs

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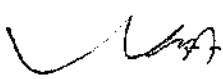

3	WATER ENVIRONMENT & ARTIFICIAL RECHARGE MEASURES	Maintenance/cleaning & development of Karmik Nagar Talab located at 0.20 Km in NW direction or any other naturally occurring water body falling within 10 km of Project area	4.5	Lakhs
4	COMMUNITY DEVELOPMENT	Adoption of Oldage homes or orphanage falling within 15 km radius of the project area	10	Lakhs
		Adoption of School - development of Infrastructure or supply of Furniture etc.	10	Lakhs
		Development of approach roads or community land or development of aanganwadi in the nearby area within 10 km radius of the project area	15	
<b>Total</b>			<b>69.5625</b>	<b>Lakhs</b>

- I. PAs presented latest status of construction and its important features with the help of Drone Survey dated 16.08.2023 to the Committee and which was duly authenticated by High Resolution Satellite Images. During presentation, it was stated that the STP is being installed, RWH will be installed with 02 no. of pits, dedicated solid waste handling site was in place and green belt will be developed as per commitment.
- II. Total budgetary provision with respect to remediation plan and natural and community resource augmentation plan is Rs. 69.5625 Lakh.
- III. Therefore, PAs shall be required to submit a bank guarantee of an amount of Rs. 69.5625 Lakh towards remediation plan and natural and community resource augmentation plan with the Jharkhand State Pollution Control Board and evidence of the same submitted to SEIAA, Jharkhand prior to grant of EC.
- IV. The bank guarantee shall be released after successful completion of remedition plan, duly recommended by the SEAC, Regional Office - MoEF&CC, Govt. of India and approval of regulatory authority. Remediation plan shall be completed in 03 years with the consultation of Local / Urban Bodies / State Govt. Deptt.
- 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 5.125 Lakh being 0.5% (Suo-Moto) of the project cost incurred till date (Rs. 10.25 Crore) 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 Residential & Commercial Complex Project "The Emporio" of M/s Alokik Infra Build LLP, Village : Saraidhela, Distt. : Dhanbad, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure –III alongwith the following specific conditions :

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

A   B  

- XII. Sufficient number of EV fast charging points to be installed.
- XIII. MSW Collection centre should be located in isolated and preferably unmanned area. Movement of the vehicle carrying waste should be under tarpaulin covered condition only. Route of vehicle should be such that it avoids residential areas as far as practical.
- XIV. ISO 14k EMS system standard to be followed for implementation of EMPs with MRM in place for feedback to Sr management.
- XV. A cycling tract to be provided in residential complex so as to save on fuel and make in campus movement environment friendly.

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2. "The Pride" Commercial Building of M/s Alokik Infra Navnirman Pvt. Ltd., Village : Saraidhela, Distt. : Dhanbad, Jharkhand.

(Proposal no. : SIA/JH/INFRA2/ 432690 /2023).

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 reappraisal on 17.08.2023.

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

However, The Honourable Supreme court in its order dated 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.

The bottom of the page features several handwritten signatures and initials in black ink. From left to right, there is a large 'A', a signature that appears to be 'Alokik', another signature, a large 'R', and a final signature that is more stylized and difficult to decipher.

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

The State Expert Appraisal Committee, Jharkhand deliberated the project during its 103<sup>rd</sup> meeting held on 14 - 18.04.2023 and SEIAA, Jharkhand has approved the violation ToRs in 104<sup>th</sup> meeting held on 27<sup>th</sup> & 28<sup>th</sup> April, 2023. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2022-23/2806/2023/86, date 03.05.2023. The final EIA / EMP submitted by PP to SEIAA on 14.08.2023 and which was forwarded to SEAC on 14.08.2023.

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 Commercial Building "The Pride" by M/s Alokik Infra Navnirman Private Ltd. Located Village: Saraidhela, District: Dhanbad, Jharkhand. The total plot area of the project is 7183.15 sq.m. The Built-up area for project is 30211.39 Sq.m.

**Background:**

- The proposed project is construction of Commercial Building "The Pride" by M/s Alokik Infra Navnirman Private Ltd. Located Village: Saraidhela, District: Dhanbad, Jharkhand.
- The total plot area of the project is **7183.15 sq.m** or **1.774 acres**. The Built-up area for project is **30211.39 Sq.m.** (including FAR + NON FAR + Services)
- The proposed project is consists of single building for which application has been submitted for Environment Clearance.
- Approved building drawing obtained from Dhanbad Municipal Corporation vide Memo No. DMC/BP/0390/W22/2021, dated 02.02.2022.
- Approx. 15 % of the construction of project is already done. Therefore Project has been applied for Environment Clearance under Category B2 (Violation case) Suo moto.

**Salient features of the project:**

S.No.	Area Details	AREA (sq.mt.)
1.	Total plot area (1.775 Acres)	7183.15
2.	Net Plot Area	7183.15
3.	Permissible Coverage Area (@50%of Net Plot Area)	3591.57
4.	Proposed Coverage Area (@42.16% of Net Plot Area)	3028.36
5.	Permissible FAR Area (2.50)	17957.57
6.	Proposed FAR Area	17886.29
7.	Non-FAR Area ( Basement+ Services)	10325.08
8.	Miscellaneous Utility ( STP, UGT, Guard Room)	2000.0
9.	Built up area	30211.39
10.	Green Area (@20% of Total Plot Area)	1436.63
11.	No. of RWH Pits	02 Pit
12.	Total project cost	Rs. 25 Crore

A   B  



**Floor Wise Area Details :**

S. No.	Floor Name	Total FAR Area (Sq.mt.)	Total Built up Area (Sq.mt.)
1.	Basement First Floor	66.91	4733.77
2.	Basement Second Floor	91.99	4737.33
3.	Lower Ground Floor	2704.87	2872.98
4.	Ground Floor	3028.36	3175.00
5.	First Floor	2715.95	2884.06
6.	Second Floor	2943.34	3111.45
7.	Third Floor	3300.53	3468.64
8.	Fourth Floor	2122.44	2219.34
9.	Fifth Floor	911.92	1008.82
10.	Terrace Floor	0.00	0.00
	<b>Total :</b>	<b>17886.31</b>	<b>28211.39</b>

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

Khata No		Plot No	
Old	New	Old	New
136	859	2090	451, 1949
		2092	451
		2091	451
		2095	1948
		2096	1948
		2097	1948
	362	2090	452
		2091	452
	977	2095	453/3228
		2093	454
	920	2097	1947

**Latitude & Longitude:**

Pillar No.	Latitude	Longitude
1	23°48'43.67"N	86°27'23.08"E

*A* *WMA* *Reddy* *B* *H* *Mud*

2	23°48'44.04"N	86°27'23.11"E
3	23°48'44.72"N	86°27'23.36"E
4	23°48'45.51"N	86°27'23.55"E
5	23°48'45.54"N	86°27'23.12"E
6	23°48'45.66"N	86°27'23.13"E
7	23°48'45.72"N	86°27'22.44"E
8	23°48'46.17"N	86°27'22.54"E
9	23°48'46.22"N	86°27'22.57"E
10	23°48'45.89"N	86°27'23.22"E
11	23°48'48.27"N	86°27'24.05"E
12	23°48'47.81"N	86°27'25.36"E
13	23°48'47.37"N	86°27'26.32"E
14	23°48'46.33"N	86°27'25.71"E
15	23°48'45.80"N	86°27'25.45"E
16	23°48'45.21"N	86°27'25.24"E
17	23°48'45.30"N	86°27'24.88"E
18	23°48'44.84"N	86°27'24.68"E
19	23°48'44.92"N	86°27'24.32"E
20	23°48'44.97"N	86°27'24.31"E
21	23°48'44.99"N	86°27'24.11"E
22	23°48'44.59"N	86°27'24.03"E
23	23°48'44.57"N	86°27'24.11"E
24	23°48'43.65"N	86°27'23.87"E

Population Break up:

S. No.	Particulars	No. of Unit	PPU/No. of person/m2	Total
1	Residents	8	@6 Person Per Unit	48
<b>Total Residential Population</b>				<b>48</b>
2	Commercial	17727.40 sq.m.	1 Person/6 sqm.	2955
•	Staff	-	@10% of Total Residential Population	296
•	Visitors	-	@ 90% of Total Residential population	2659
<b>Total Commercial Population</b>				<b>2955</b>
<b>Total Population ( Residential + Commercial )</b>				<b>3003</b>

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Site Surroundings:

S. No	Particulates	Name of Places	Distance (Km)	Direction	
1.	Nearest Airport	-	-	-	
2.	Nearest Railway Station	Dhanbad Junction	3.63	SW	
3.	Nearest Bus Stand	Dhanbad Bus Stand	2.67	SE	
4.	Nearest State Highway/Any other road	Bhiphore Hirak Road	1.43	N	
		SH-13	8.19	NE	
5.	Nearest National Highway	NH-18	0.01	S	
6.	Nearest School/College	D.A.V. High School	0.18	NW	
		Golden Daisy Public School	0.30	N	
		P.K. Roy Memorial College	0.86	W	
7.	Nearest Masjid/Mandir	New Shiv Mandir	0.29	NW	
		Koyla Nagar Masjid	0.84	SSE	
8.	Nearest Hospital	JIMS Hospital	0.64	W	
		CHD hospital	0.97	SW	
9.	Nearest Police Station	Saraidhela Police Station	0.65	SW	
10.	Nearest Fire Station	Fire Station Dhanbad	2.29	SW	
11.	State Border	West Bengal	19.60	SSE	
12.	National Border	-	-	-	
13.	Nearest Pond	Karmik Nagar Talab	0.25	NW	
		CCWO Lake	0.64	NE	
14.	Nearest River/Nallah/ Canal	Damodar River	14.00	SSW	
15.	Wild Life Sanctuary and ESZ	Parasnath and Topchachi Wildlife Sanctuary and ESZ	13.4	N	
16.	Forest	Reserved/ Protected	Dhangri Reserved Forest	2.86	E
		Any other	Amtal Forest Patch	5.33	SSW
17.	Nearest Town/City/ Head Quarters	City- Dhanbad	3.22	SW	
18.	Nearest Defence Installation	Cisf unit bccI dhanbad	0.8	E	
		CRPF Camp Dhanbad	8.38	SE	

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19	Historical Importance Place			
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**Water Requirement:**

The water requirement will be met by Municipal Supply. The total water requirement for operational phase is approx. 60 KLD. Fresh water requirement is approx. 24 KLD.

**Calculations for Daily Water Demand:**

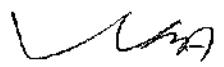



S. No.	Particulars	Occupancy/ Area/ No's	Fresh Water Demand		Treated Water Demand	
			lpcd	Quantity	lpcd	Quantity
1	Total Residents	48	70	3.36	30	1.44
2	Commercial	2955	-	-	-	-
	Staff	296	25	7.4	20	5.92
	Visitors	2659	5	13.3	10	26.6
3	Landscape	1436.63	NIL	NIL	1l/sqm	1.43
Total Water Requirement (Residential +Commercial)				24.06		35.39
Total Water Requirement						59.45~60

**Summary of Water and Waste water:**

No.	Particulars	In KLD
1	Total Water Requirement	60
2	Fresh Water Requirement	24.06
3	Treated Water	35.39
4	Wastewater Generated ( 80% of Fresh i.e. 19.2 KLD + 100% Flushing i.e. 33.96 KLD)	53.16
5	STP Capacity ( approx. 20% higher than the wastewater generated)	75

**Power Requirement:**

There is requirement of 2800 kVA power supply. 3 DG sets of capacity of 500 kVA 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.

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**Calculation of Solid Waste generation:**

S. No.	Category	Occupancy/ Area/ No's	Kg per capita per day	Waste generated (kg/day)
1	Residents	48	0.5 kg/day	24
2	Commercial	2955	-	-
	Staff	296	0.25 kg / day	74
	Visitor	2659	0.15 kg /day	399
3	Landscape waste (1436.63 m <sup>2</sup> )	14.36.63	0.2 kg/acres	0.070
<b>Total Solid Waste Generated</b>				<b>497.07 kg/day</b>

**STATUTORY CLEARANCES**






1	DFO Forest Distance	:	Divisional Forest Officer (DFO), Dhanbad Forest Division vide letter no. 2213 dated 24.11.2020 certified that distance of reserved /protected forest is 1000 meter from the proposed project site.
2	DFO wildlife	:	DFO, Wildlife Hazaribagh vide letter no. 411, dated 27.02.2023 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
3	CO certificate	:	The CO, Dhanbad vide letter no 230 dated 14.02.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
4	Fire Department	:	A fire advisory has been issued by Fire Department, Jharkhad, Ranchi vide vide memo no. 4278/Tech./2021, dated 28.12.2021.
5	Building Plan approval	:	Building plan approved by Dhanbad Municipal Corporation vide memo no. DMC/BP/0010/W22/2022, Dated 23.02.2022.
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.

On the basis of above the State Level Expert Appraisal Committee (SEAC), Jharkhand recommended an amount of rupees 34.313 Lakh as per CPCB guidelines towards remediation

plan and natural & community resource augmentation plan to be spent within a period 03 years. The details of summary of Natural resource and Environmental / Ecological Damage assessment with budgetary provision for expenditure under the below mention head for remediation :-

S.No	Environment Aspects	Cost Analysis	Capital cost	
1.	AIR ENVIRONMENT	Afforestation/Social Forestry through DFO, Dhanbad under clean Air Program	9	Lakhs
2.	ENERGY CONSERVATION	Solar panel installation/solar street lightning in the community land	10	Lakhs
3.	WATER ENVIRONMENT & ARTIFICIAL RECHARGE MEASURES	Maintenance/cleaning & development of Karmik Nagar Talab located at 0.20 Km in NW direction or any other naturally occurring water body falling within 10 km of Project area	5	Lakhs
4.	COMMUNITY DEVELOPMENT	Adoption of School - development of Infrastructure or supply of Furniture etc. type of development	5	Lakhs
		Development of approach roads or community land within 10 km radius of the project area	5.313	
<b>Total</b>			<b>34.313</b>	<b>Lakhs</b>

- I. PAs presented latest status of construction and its important features with the help of Drone Survey dated 16.08.2023 to the Committee and which was duly authenticated by High Resolution Satellite Images. During presentation, it was stated that the STP is being installed, RWH will be installed with 02 no. of pits, dedicated solid waste handling site was in place and green belt will be developed as per commitment.
- II. Total budgetary provision with respect to remediation plan and natural and community resource augmentation plan is Rs. 34.313 Lakh.
- III. Therefore, PAs shall be required to submit a bank guarantee of an amount of Rs. 34.313 Lakh towards remediation plan and natural and community resource augmentation plan with the Jharkhand State Pollution Control Board and evidence of the same submitted to SEIAA, Jharkhand prior to grant of EC.
- IV. The bank guarantee shall be released after successful completion of remedition plan, duly recommended by the SEAC, Regional Office - MoEF&CC, Govt. of India and approval of regulatory authority. Remediation plan shall be completed in 03 years with the consultation of Local / Urban Bodies / State Govt. Deptt.

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- V. Approval / permission from CGWA shall be obtained before drawing ground water for the project activities, if applicable. Jharkhand State Pollution Control Board shall not issue Consent to Operate (CTO) until the PAs obtains such permission.
- VI. PAs shall take necessary other clearances / permissions under various act and rules if any, from the respective authorities / departments.
- VII. STP of adequate capacity shall be established within the project premises.
- VIII. Energy conservation measures adhering to part of ECBC norms shall be complied with.
- IX. The penalty of Rupees 1.87 Lakh being 0.5% (Sou-Moto) of the project cost incurred till date (Rs. 3.75 Crore) 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 "The Pride" Commercial Building of M/s Alokik Infra Navnirman Pvt. Ltd., Village : Saraidhela, Distt. : Dhanbad, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure –III alongwith the following specific conditions :

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

- XI. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.
- XII. Sufficient number of EV fast charging points to be installed.
- XIII. MSW Collection centre should be located in isolated and preferably unmanned area. Movement of the vehicle carrying waste should be under tarpaulin covered condition only. Route of vehicle should be such that it avoids residential areas as far as practical.
- XIV. ISO 14k EMS system standard to be followed for implementation of EMPs with MRM in place for feedback to Sr management.
- XV. A cycling tract to be provided in residential complex so as to save on fuel and make in campus movement environment friendly.

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**3. Enhancement of MS Billet Production from 15,000 TPA to 1,48,500 TPA through 3x15 T Induction Furnaces (by Replacing existing 1x6 T furnace with 1x15 T & Installing additional 2x15 T Furnaces along with CCM – 2x2 Strand), Slag Crusher from 2400 TPA to 30,000 TPA capacity and TMT Bars & Rolled Products from 13,500 TPA to 1,44,210 TPA by Modernization of Existing Rolling Mill from 1x5 TPH to 1x25 TPH capacity along with Electroplating unit of 20 TPD by M/s Tulshyan Metals Private Limited, Village : Gajhandi Road, Gumo Jhumri Telaiya, P.S. : Koderma, Dist. : Koderma, Jharkhand.**

**{Proposal No. : SIA/JH/IND1/439213/2023}.**

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

This is an expansion project which has been taken for appraisal on 17.08.2023.

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

M/s Tulshyan Metals Private Limited is an existing secondary unit at Gajhandi Road, Gumo, Jhumri Telaiya, District Koderma, and State Jharkhand. M/s Tulshyan Metals Private Limited is a Private Incorporated on 08 August 2005. It is classified as Non-govt Company and is registered at Registrar of Companies, Patna. Mr. Ashish Kumar Agrawal, Mrs. Richa Agrawal is the directors of the company.

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M/s Tulshyan Metals Private Limited is currently engaged in the production of 15000 TPA M.S. Ingot/Billet through 1x6T Induction Furnace & CCM (2x2 Strand, Rad. 4/7) along with Slag Crusher of capacity 2400 TPA & TMT Bars, Rolled products 13500 TPA by Rolling Mill of capacity 1X5 TPH after obtaining the Consent To Establish (CTE) from Jharkhand State Pollution Control Board (JSPCB) vide letter No. JSPCB/HO/RNC/CTE- 10604394/2021/240, dated 27-09-2021.






Consent to Operate (CTO) for the same production capacity was obtained from JSPCB vide ref No. JSPCB/HO/RNC/CTO-11520314/2022/137, dated 04.02.2022 with a validity upto 30/09/2022.

M/s Tulshyan Metals Private Limited now proposes to obtain Environmental Clearance for the Enhancement of MS Billet Production From 15,000 TPA to 148,500 TPA through 3x15T Induction Furnaces (by Replacing existing 1x6 T furnace with 1x15T & Installing additional 2x15T Furnaces Along With CCM-2X2 Strand, Slag Crusher From 2400 TPA to 30,000 TPA capacity and TMT Bars & Rolled Products from 13,500 TPA To 144,210 TPA By Modernization Of Existing Rolling Mill From 1x5TPH To 1x25 TPH Capacity along with Electroplating Unit of 20 TPD. The expansion will be done within the existing plant of 2.70 Acres.

Cost of the existing facilities is Rs. 10.0 crore, the total estimated cost of the project after the proposed expansion will be Rs 43. Crore.

**Project Details :**

S. No	Parameters	Description
1.	Project Name	Environmental Clearance for the Enhancement of MS Billet Production From 15,000 TPA to 148,500 TPA through 3x15T Induction Furnaces (by Replacing existing 1x6 T furnace with 1x15T & Installing additional 2x15T Furnaces Along With CCM-2X2 Strand), Slag Crusher From 2400 TPA to 30,000 TPA capacity and TMT Bars & Rolled Products from 13,500 TPA To 144,210 TPA By Modernization Of Existing Rolling Mill From 1x5TPH To 1x25 TPH Capacity along with Electroplating Unit of 20 TPD by M/s Tulshyan Metals Private Limited
2.	Existing Capacity	MS Billet - 15000 TPA, Slag Crusher - 2400 TPA, TMT Bars Rolled products - 13500 TPA.
3.	Capacity after proposed Expansion	MS Billet - 148,500 TPA, Slag Crusher - 30,000 TPA, TMT Bars Rolled products - 144,210 TPA.

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4.	Total Plot Area	Total Plot Area 2.70 Acre
5.	Location	Gajhandi Road, Gumo, Jhumri Telaiya, District Koderma, and State Jharkhand
6.	Water requirement	Water requirement is fulfilled through bore well made at the plant area and from the rain water harvesting pond. Overall water requirement for the proposed expansion project will be approx. 300 KLD out of which 270 KLD will be recirculate in the process and 30 KLD will be makeup water.
7.	Source of water	Borewell
8.	Wastewater	The domestic water consumption will result in generation of ~4.0 m <sup>3</sup> /day of domestic wastewater. The wastewaters will be treated and entirely reused.
9.	Man Power	Existing: 40 Total after expansion: 100
10.	Electricity/Power requirement	The electrical power requirement will increase to ~22000 kVA. One DG set of 250 kVA already installed (as power back-up).
11.	Alternative site	The proposed addition will be established in the existing plant premises only.

**Land Details :**

Khata No.	Plot No.
97	104
34	105
100	103

**Latitude & Longitude of the project :**

Sl No.	Latitude	Longitude
1	24°25'57.894"N	85°29'23.137"E
2	24°25'57.668"N	85°29'24.942"E





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3	24°25'58.683"N	85°29'25.122"E
4	24°25'58.300"N	85°29'27.378"E
5	24°25'57.510"N	85°29'27.333"E
6	24°25'56.653"N	85°29'30.515"E
7	24°25'55.953"N	85°29'33.109"E
8	24°25'54.284"N	85°29'32.207"E
9	24°25'55.592"N	85°29'27.897"E
10	24°25'56.472"N	85°29'23.295"E

**Configuration and Production Capacities of the existing & Proposed Units :**

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	1x6T	15,000 TPA	Replacement of existing 1x6T by 1x15T and additional 2x15T  1x2 strand, Rad. - 4/7	1,48,500 TPA MS Billets	3x15T	Hot MS Billets 148,500 TPA
2.	Continuous Casting Machine	1x2 strand, Rad. - 4/7	MS Billets			2x2 strand, Rad. - 4/7	
3.	Rolling Mill	1X5 TPH	13500 TPA	Mordenising the existing Rolling mill from 1X5 TPH to 1x25TPH	144,210TPA TMT Bars & Rolled Products/Rod setc.	1x25TPH	144,210 TPA TMT Bars& Rolled Products/ Rods etc.
4.	Slag Crusher	--	2400 TPA	Replacement of existing facility By 1x10 TPH	30,000 TPA	--	30,000 TPA
5.	Electroplating Unit	--	--	1*20 TPD	20 TPD	1*20 TPD	20 TPD

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

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**Salient Features of the Project existing & proposed**

Sl no	Particulars	Existing	Proposed	After expansion final
1.	<b>Unit processes/ machinery</b>			
a	Induction Furnace/ Continuous Casting Machine	1x6T CCM 1x2 strand, Rad. - 4/7 15000 TPA M.S Billet	Replacement of existing 1x6T by 1x15T and additional 2x15T1x2 strand, Rad. - 4/7	1,48,500 TPA MS Billets
b	Rolling Mill	13500 TPA 1x5TPH	Modernizing the existing Rolling mill from 1x5 TPH to 1x25TPH	144,210TP A TMT Bars & Rolled Produ cts/ Rods etc.
d	Slag Crusher	2400 TPA	Replacement of existing facility  By 1x10 TPH	30,000 TPA
e	Electroplating Unit	--	1*20 TPD	1*20 TPD
2	Fixed capital investment (Rs)	~10Cr	~33Cr	~43Cr
3	Electrical power requirement	~4500 KVA	~17500 KVA	~22000 KVA
4	Sponge iron	44 TPD	452 TPD	452 TPD
5	Ferro-alloys	1.0 TPD	11 TPD	11 TPD
6	MS Scrap/Pig iron	10 TPD	95TPD	95TPD
7	Ingots/billets (Only for rolling)	41 TPD	450 TPD	450 TPD

8	Manpower requirement	~40	~60	~100
9	Makeup Water requirement	10 m3 /day	~ 20 m3 /day	~ 30 m3 /day
10	Domestic water requirement	~2.0 m3/day	~ 3.0 m3/day	~5.0 m3/day
11	Domestic wastewater generation	~1.6 m3/day	~2.4 m3/day	~4.0 m3/day
12	Solid Waste Slag Mill Scale	Slag: 8.0 TPD Mill Scale: 0.4 TPD	Slag: 90 TPD Mill Scale: 4.0 TPD	Slag: 90 TPD Mill Scale: 4.0 TPD
13	Bag Filter Dust from the process	30 TPA	~297 TPA	~297 TPA
14	APCD- Bag-House Filter	01	01	01
15	Fuel	HSD- DG sets		
16	ETP	10 KLD		

#### Proposed Raw Materials Details

Sl no.	Raw Materials	Existing Requirement	Total Requirement after Expansion
1	Sponge iron	44 TPD	452 TPD
2	Ferro-alloys	1 TPD	11 TPD
3	MS Scrap +Pig iron	10 TPD	95 TPD

#### Existing & Proposed Configuration and Production - Rolling Mill

Sl. No	Plant Facilities	Existing Installed Units and Capacity		Proposed Units and Capacity		Total after Expansion	
		Unit	Capacity	Unit	Capacity	Unit	Capacity
	Rolling Mill	1X5 TPH	13500 TPA	Modernizing the existing	144,210 TPA TMT Bars &	1x25TPH	144,210 TPA

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			Rolling mill from 1X5 TPH to 1x25TPH	Rolled Products/Rods etc.		TMT Bars & Rolled Products/ Rods etc.
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### Raw Materials Details- Rolling Mill

Raw Materials	Existing	Total After Expansion
M.S Billet	41TPD	450 TPD

### Raw Materials Requirement After Expansion

Raw Materials	Total Requirement After Expansion (TPD)	Source
<b>MS Billets Production</b>		
Sponge Iron	~452 TPD	Local Plants in Koderma. Through Road
Ferro-alloys	~11 TPD	Plants in Asansol. Through Road
MS Scrap/Pig Iron	~95TPD	Scrap- In-house & nearby Plants. Through Road Pig iron- Local Plants in Koderma Through Road
<b>Rolling Mill – Angle, Flat Etc.</b>		
Hot Billets/M.S. Billets	450 TPD	Billets will be used for in- house rolling mill
<b>Electroplating Machine</b>		
Zinc	20kg/day	Open Market
HCL	20lpd	Open Market
Salt	1 liter per tone	Open Market

#### Green Belt :

The total greenbelt area is 40%. A greenbelt development plan will be prepared and implemented for the expansion project. Due to non availability of sufficient land within the industrial premises, the PAs have proposed to developed green belt in the land adjacent the project premises.

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### Water Management (Source and Supply of Water) :

The water will be stored in respective recirculation tanks for continuous recycle. The water losses, due to spillages and evaporation, will be constantly made-up by adding fresh water. Total cooling water make-up requirement will be about 60 m<sup>3</sup>/day. Out of this, the RO treated water requirement will be about of 36 m<sup>3</sup>/day (resulting in reject generation @ 5 m<sup>3</sup>/day). Industry will need a maximum of 5.0 m<sup>3</sup>/day of fresh water for domestic use. A part of the sanitation water requirement will be met from reuse of RO plant reject water.

### Sewerage System :

The domestic water consumption will result in generation of ~4.0 m<sup>3</sup>/day of domestic wastewater. The wastewaters will be treated and entirely reused. The effluent generated will be treated in the ETP of capacity 10 KLD.

### Power Requirement & Supply / source :

The total power requirement for the unit is 22.0 MVA. The total power demand of the plant will be met through DVC. The plant has existing DG Sets of 1x250 kVA.

### STATUTORY CLEARANCES :

1	Lease docs	:	Private land, owned by M/s Tulshyan Metals Private Limited.
2	DFO Forest Distance	:	DFO, Koderma Division vide letter no. 2498, dated 10.06.2023 certified that the distance of reserved/protected forest is 270 m from project site.
3	DFO Wildlife	:	DFO, Wildlife Hazaribagh vide letter no. 1670, dated 03.08.2023 certified that proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.
4	CO certificate	:	The CO, Koderma vide letter no. 851, dated 13.05.2023 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyon.
6	Consent to Operate (CTO)	:	CTO issued by JSPCB vide Ref. no. : JSPCB/HO/RNC/CTO-11520314/2022/137, dated 04.02.2022.

Baseline data has been generated from 1<sup>st</sup> March, 2023 to 31<sup>st</sup> May, 2023.

Based on the information contained in the documents submitted and the presentation made before the State Level Expert Appraisal Committee (SEAC) during its meetings held during 16, 17, 18, 19 & 20.08.2023, the Committee recommends for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure IV alongwith the following specific

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conditions :

- I. Ground water permission must be obtained at the time of final EIA.

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4. Proposed Residential Housing under Pradhan Mantri Awas Yojna "ANNI Site - 1" of Jharkhand Urban Infrastructure Development Company Limited, Village : Murma, Tehsil : Nagri, Distt. : Ranchi, Jharkhand.

(Proposal No. : SIA/JH/INFRA2/436743/2023).

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

This is a new project which has been taken for appraisal on 17.08.2023.

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.

Jharkhand Urban Infrastructure development Co. Ltd. is proposed to develop a Residential housing Project "PMAY ANNI Site-1" on the total land area measuring 29841.86 m<sup>2</sup> located at Khata No. 83, 151, 132, 35, 136, 174, 143, 141, 1, Plot No. 1462P, 1463, 1464, 1465/1, 1465/2, 1466, 1467, 1468, 1469P, 1470, 1471P, 1474 P, 1475, 1476P, 1477P, Village-Murma, Dist. Ranchi, Jharkhand. The total build-up area is 55223.07 m<sup>2</sup>.

#### Salient Features of the Project

Sr. No.	Particulars	
1.	Latitude	23°19'54.17"N
2.	Longitude	85°16'38.97"E
3.	Plot Area	29,841.86 Sqm. (7.38 Acres)
4.	Permissible Ground Coverage @50%	14920.93 sqm.
5.	Proposed Ground Coverage @19.60%	5850.63 sqm.
6.	Residential Building Built-up area (FAR)	52655.67 Sqm.
7.	Residential Building Non FAR area	2567.4 Sqm.
8.	Total Built-up area	55223.07 Sqm.
9.	Parking Requirement, ECS for cars 20% of 1296	259 ECS
10.	Parking Requirement, ECS for Scooter 80% of	1037 Nos.

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Sr. No.	Particulars	
	<b>1296</b>	
11.	Parking Provided ECS for Cars	260 ECS
12.	Parking Provided ECS for Scooters	1038 Nos.
13.	Total Parking Area Provided	5324.47 Sqm.
14.	Greenbelt area	5514.16 Sqm. (~18.47%)
15.	Rain Water Harvesting Pits (with size)	6 (28.86 Cumec/hour)
16.	STP Capacity	544 KLD
17.	Maximum Height of the Building (m)	Approx. 26.1 m.
18.	Power Requirement	~1334 KW
19.	Power Backup	2 DGs of 320 KVA each
20.	Total Water Requirement	~544 KLD
21.	Fresh/Domestic Water Requirement	~368 KLD
22.	Reuse of Recycled Water	~176 KLD
23.	Waste water Generated	~453 KLD
24.	Solid Waste Generated (Operational)	~2385 Kg/day
25.	Biodegradable Waste (Operational)	~954 Kg/day
26.	Non-Biodegradable Waste (Operational)	~1431 Kg/day
24.	Number of Tower	09 (Block 1 to 9)
25.	Basement	No
26.	Stories	G+8
27.	Total Cost of the project:	147.3 Cr.
28.	EMP Budget	
	During Construction: Capital: 48 Lakhs Recurring: 18 Lakhs	
	Operational Cost: Capital: 175 Lakhs Recurring: 29 Lakhs	
Construction Phase:	i) Water Requirement & Source	Fresh water – 9 KLD Treated wastewater-12 KLD Source: Tanker water supply
	ii) STP (Modular)	20 KLD

Khata no.& Plot no. of the project :

Khata No	Khesra No
83	1462 (P)
151	1463
151	1464
132	1465/1
132	1465/2
35	1466
136	1467
174	1468
143	1469 (P)
143	1470
141	1471 (P)
136	1474 (P)
143	1475
1	1476 (P)
1	1477 (P)

#### Detailed Area Statement

S. No.	Details	Area	
1	Total Plot area	29841.86	Sqm.
2	Permissible FAR @3.75	111906.97	Sqm.
3	Total FAR Achieved	1.76	
4	Residential Building Built-up area (FAR)	52655.67	Sqm.
5	Residential Building Non FAR area	2567.4	Sqm.
6	Total Built-up Area	55223.07	sqm
7	Permissible Ground Coverage @50%	14920.93	sqm
8	Proposed Ground Coverage @19.60%	5850.63	sqm
9	Solid Waste storage, STP & ESS area	665	sqm
10	Total Proposed Ground Coverage	6515.63	sqm
11	Total no. of Units (9 No. of Blocks, G+8, 16 unit per Blocks), 9x9x16	1296	Nos.
12	Parking Area Provided (Cars)	3161.97	sqm
13	Parking Area Provided (Scooter)	2162.5	sqm
14	Total Parking Area Provided	5324.47	sqm
15	Green Belt area Provided @18.47%	5514.16	sqm
16	Road Area	6289.13	sqm
17	Open Area	6198.47	sqm

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### Details of Site Surroundings and Connectivity

S. No.	Description	Distance and Direction
1.	Nearest Junction/ Nearest Railway Station	Hatia Railway station Piska railway station Argora railway station Ranchi Junction
2.	Nearest Airport	Birsa Munda Airport, Ranchi
3.	Nearest Village	Masibari Dhurwa Hotwasi Jagannathpur
4.	Nearest Highway/Roads	Jagannathpur Mandir Road Sai Mandir Road Ranchi Bypass Road NH-39,
5.	Nearest School & College	Kidzee School, Sail City Road Doon Kids, School, Bhaskar path, Rachi Bloom Era Public School Kendriya Vidyalaya HEC Jagannathpur, Middle School
6.	Nearest Hospital	ISPAT Hospital, Mecon City Hospital Doranda State Hospital Berlin General Hospital
7.	Places of worship	Mata Mandir Shiv Mandir Hanuma Mandir Shri Panchmukhi Mandir
8.	Water Bodies	Argora River Subarnarekha River
9.	Nearest Town	Ranchi

### Details of Building Blocks

Block Details	1 BHK / Dwelling Units	No. of Floors	Height of the Building
Block 1	144	G+8	26.1
Block 2	144	G+8	26.1
Block 3	144	G+8	26.1
Block 4	144	G+8	26.1
Block 5	144	G+8	26.1

Block 6	144	G+8	26.1
Block 7	144	G+8	26.1
Block 8	144	G+8	26.1
Block 9	144	G+8	26.1
<b>Total</b>	<b>1296</b>		

#### Calculation of Population

Block	Total Dwelling Units	Unit Population	Population
Residential Block	1296	4	5184
Visitors	10% of Residential Population		518
<b>Total</b>			<b>5702</b>

#### Parking Details

Parking Area Provided (Cars)	3161.97 Sqm.
Parking Area Provided (Scooter)	2162.5 Sqm.
<b>Total Parking Area Provided</b>	<b>5324.47 Sqm.</b>
<b>Total no. of Units</b>	<b>1296</b>
Parking Requirement, ECS for cars 20% of 1296	259 ECS
Parking Requirement, ECS for Scooter 80% of 1296	1037 No.
<b>Parking Provided ECS for Cars</b>	<b>260 ECS</b>
<b>Parking Provided ECS for Scooters</b>	<b>1038 No.</b>

#### Calculation of Greenbelt

<b>Total Plot Area</b>	<b>29841.86 sqm.</b>
Landscape area provided @ ~18.47 % of Plot Area	5514.16 Sqm.
Total No. of Trees required to be planted @ 1 tree per 80 Sqm. of Plot Area	373 No.
Trees to be planted	3 tier plantation will be done as much as possible.

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### Details of Water Requirement

S. No.	Description	No. of units / Area in Sqm	Unit Population /Per flat Population	Total Population	Per unit water consumption (lpcd)	Total water required (kld)	Fresh water required (kld)	Flushing (kld)	Total Wastewater (kld) (80% of domestic +100% Total flushing)
1	Main Dwelling Units (Residential) 1 BHK	1296	1 BHK: 4 Person	5184	100 (70+30)	518	362.88	155.52	446
2	Visitors (10% of the residential population)	...	...	518	15 (10+5)	7.77	5.18	2.59	6.73
Subtotal -I						526	368	158.11	453
STP requirement 20% extra than waste water generated						544			
Treated water generation @80% of waste water						362			
Reuse of treated water									
	Horticulture	5514.16	3 liter/sqm of Landscape area	...		17			
	DG Sets	640	2 lt./KVA/6 hr	...		1			
Sub Total -II						18			
Grand Total (Sub Total I + Sub Total II)						544			

S. No.	Net Energy saved	
1.	Solar Based lighting will be done in the common areas, Signages, entry gates and boundary walls etc. @ 5% of the total Power requirement	65 KVA
2.	LED Based lighting will be done in the dwelling units	31.59 KVA
3.	Usage of energy efficient Lift (VVVF non gear lifts)	27 KVA
	Total Energy saved	123.59 KVA
	Total Energy consumption	1334 KVA
	Energy saving	9.26 %

	Energy saving by Residence Envelope Transmittance Value (RETV) / Energy Saving by Passive Method in Building	180 KVA (13.5 %)
	Total Energy Saving	303.59 KVA 22.76 %

**STATUTORY CLEARANCES :**

1	DFO Forest Distance	:	DFO, Ranchi Forest division vide letter no. 3138, dated 12.08.2023 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. 741, dated 08.08.2023 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
3	CO certificate	:	The CO, Nagri, Ranchi vide letter no. 1086 (ii), dated 12.08.2023 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyar & Register II.
4	Fire Department	:	Application for NOC from Fire Department will be submitted. After getting approval from Fire Department same will be submitted to SEIAA/SEAC Jharkhand.
5	Building Plan approval	:	Conceptual Plan submitted.
6	AAI	:	Application for NOC from AAI will be submitted. After getting approval from AAI same will be submitted to SEIAA/SEAC Jharkhand.



Based on the presentation made and information provided, the Committee decided that the proposal for Proposed Residential Housing under Pradhan Mantri Awas Yojna "ANNI Site - 1" of Jharkhand Urban Infrastructure Development Company Limited, Village : Murma, Tehsil : Nagri, Distt. : Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure -III alongwith the following specific conditions :

- I. Ground water to be drawn for use in the project only after obtaining permission from the Competent Authority.

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- II. Only rooftop water to be recharged in to ground water after necessary filtration process.
- III. 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.
- IV. All raw material to be stored only under covered shed.
- V. 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.
- VI. 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.
- VII. Trees should be developed & maintained not less than 15% of project area.
- VIII. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.
- IX. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- X. 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.
- XI. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- XII. 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.
- XIII. Sufficient number of EV fast charging points to be installed.
- XIV. MSW Collection centre should be located in isolated and preferably unmanned area. Movement of the vehicle carrying waste should be under tarpaulin covered condition only. Route of vehicle should be such that it avoids residential areas as far as practical.
- XV. ISO 14k EMS system standard to be followed for implementation of EMPs with MRM in place for feedback to Sr management.
- XVI. A cycling tract to be provided in residential complex so as to save on fuel and make in campus movement environment friendly.

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5. Proposed Residential Housing under Pradhan Mantri Awas Yojna "ANNI Site – 2A, 2B & 3" of Jharkhand Urban Infrastructure Development Company Limited, Mauza : Anni, Tehsil : Nagri, Distt. : Ranchi, Jharkhand.

(Proposal No. : SIA/JH/INFRA2/436864/2023).

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

This is a new project which has been taken for appraisal on 17.08.2023.

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.

Jharkhand Urban Infrastructure development Co. Ltd. is proposed to develop a Residential housing Project "PMAY Anni site-2A,2B & 3" on the total land area measuring 58295.89 m<sup>2</sup> located at Khata No. 8, 32, 45, 25, 22, 69, 59, 69, 66, 67, 13, 35, 25, 65, 183, 154, 110, Plot No. 493P, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 508/907, 509, 510, 512P, 513P, 522P, 523, 535, 536P, 577P, 1537P, 1538P, 1539P, 1540P, 1541, Village-Anni, Dist. Ranchi, Jharkhand. The total build-up area is 79627.99 m<sup>2</sup>.






#### Salient Features of the Project

Sr. No.	Particulars	
1.	Latitude	23°19'43.96"N
2.	Longitude	85°17'02.38"E
3.	Plot Area	58295.89 Sqm
4.	Proposed Ground Coverage 14.50 %	8450.91 Sqm
5.	Total residential built-up area (FAR)	76058.19 Sqm
6.	Others (Non-FAR)	3569.8 Sqm
7.	Total Built-up Area	79627.99 Sqm
8.	Total no. of Dwelling Units	1872 Nos.
9.	Total Parking Required (ECS)	
	Parking Requirement, ECS for cars 20% of 1872	375 ECS
	Parking Requirement, ECS for Scooter 80% of 1872	1498 Nos.

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10.	Total Parking Proposed (ECS)		375 ECS 1498 Nos.
11.	Greenbelt area @ 20.43 %		11908.04 Sqm.
12.	Rain Water Harvesting Pits (with size)		9 (38.48 Cumec/hour)
13.	STP Capacity		803 KLD
14.	Maximum Height of the Building (m)		Approx. 26.10 m
15.	Power Requirement		~1875 KW
16.	Power Backup		2 DGs of 380 KVA each
17.	Total Water Requirement		~822 KLD
18.	Fresh/Domestic Water Requirement		~457 KLD
19.	Reuse of Recycled Water		~365 KLD
20.	Waste Water Generated		~669 KLD
21.	Solid Waste Generated (Operational)		~3444 Kg/day
22.	Biodegradable Waste (Operational)		~1378 Kg/day
23.	Non-Biodegradable Waste (Operational)		~2066 Kg/day
24.	Number of Tower		13 (Block 1 to 13)
25.	Stories		G+8
26.	Total Cost of the project:		204.2 Cr.
27.	EMP Budget		During Construction: Capital: 32.5 Lakhs Recurring: 15 Lakhs
			Operational Cost: Capital: 171 Lakhs Recurring: 51 Lakhs
	Construction Phase:	iii) Water Requirement & Source	Fresh water – 9 KLD Treated wastewater-12 KLD Source: Tanker water supply

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Plot no. & Khata no. of the project :

Mauza- Anni	
Khesra No	Khata
493P	8
494	8
495	32
496	32
497	45
498	45
499	8
500	25
501	22
502	32
503	69
504	32
505	32
506	32
507	32
508	59
508/907	69
509	59
510	66
512P	66
513P	67
522P	59
523	13
535	35
536P	25
577P	65
Mauza- Murma	
1537 P	183
1538 P	154
1539 P	154
1539 P	154
1540 P	154
1541	110

Detailed Area Statement





S. No.	Details	Area		Percentage
1	Total Plot area	58295.89	sqm	..
2	Permissible FAR @3.75	218609.5875	sqm	
3	Total FAR Achieved @1.30	76058.19	sqm	..
4	Balcony & Non FAR area	3569.8	sqm	

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5	<b>Total Built-up Area</b>	<b>79627.99</b>	sqm	
6	Permissible Ground Coverage @50%	29147.95	sqm	50%
7	Proposed Ground Coverage @14.50%	8450.91	sqm	14.50%
8	Proposed ESS, Solid waste Storage area	305	sqm	
9	Space for Community facility	5830.01	sqm	
10	<b>Total no. of units</b>	<b>1872</b>	<b>No.</b>	
11	Parking Area Provided (Cars)	5733.23	Sqm	
12	Parking Area Provided (Scooter)	2996	sqm	..
13	Parking Area Provided (Cars+Scooter)	<b>8729.23</b>	sqm	
14	Green Belt area Provided @20.43%	11908.04	sqm	20.43%
15	Road Area	10221.39	sqm	17.53%
16	Open Area	12851.31	sqm	22.04%

#### Details of Site Surroundings and Connectivity

S. No.	Description		Distance and Direction
1.	Nearest Junction Nearest Railway Station	Hatia Rasilway station Argora railway station Ranchi Junction	Approx. 3.30 Km towards SE. Approx. 3.85 Km towards NE. Approx. 5.45 Km towards ENE.
2.	Nearest Airport	Birsa Munda Airport, Ranchi	Approx. 4.45 km towards ESE.
3.	Nearest Village	Masibari Dhurwa Hotwasi Jagarnathpur	Approx. 0.80 Km towards East. Approx. 2.25 Km towards SSE. Approx. 3.80 Km towards WSW. Approx. 3.75 Km towards WNW.
4.	Nearest Highway/Roads	New Link Road Jagannathpur Mandir Marg Dhurwa Road NH-39,	Adjacent to Site. Approx. 1.05 km towards South. Approx. 2.0 km towards SE. Approx. 3.55 km towards West.
5.	Nearest School & College	Kidzee School, Sail City Road Doon Kids, School, Bhaskar path, Rachi Bloom Era Public School Kendriya Vidyalaya HEC	Approx. 0.37 Km towards NE. Approx. 0.43 Km towards NE. Approx. 0.53 Km towards NNE. Approx. 1.53 Km towards East.

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S. No.	Description		Distance and Direction
		Sardar Patel, Govt. Scholl, HEC Colony	Approx. 1.71 Km towards East.
6.	Nearest Hospital	ESIC Dhurwa Ranchi Jharkhand Doranda State Hospital Divisional Railway Hospital Sardar Hospital, New Barhi Toli, Rachi	Approx. 1.70 Km towards ENE. Approx. 3.80 Km towards ENE. Approx. 3.60 Km towards SE. Approx. 6.30 Km towards NE.
7.	Places of worship	Mata Mandir Shiva Temple Shri Krishna mandir Hanuman Mandir	Approx. 0.60 Km towards ENE. Approx. 0.85 Km towards SE. Approx. 1.0 Km towards SE. Approx. 1.15 Km towards SW.
8.	Water Bodies	Argora River Subarnarekha River Dhurwa Dam	Approx. 2.01 Km towards NNE. Approx. 0.15 Km towards NNE Approx. 4.15 Km towards SW.
9.	Nearest Town	Ranchi	Approx. 3.20 Km towards NE.

#### Details of Building Blocks

Total No. of Block	No. of Dwelling Units per Block	Total No of Floors	Total No. of units	No. of Floors	Height of the Building
13	16	9	1872	G+8	Max. 26.10 m.
Total			1872		

#### Calculation of Population

Block	Total Dwelling Units	Unit Population	Population
Residential Block	1872	4	7488

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Visitors	10% of Residential Population	748
<b>Total</b>		<b>8236</b>

#### Parking Details

Parking Area Provided (Cars)	5733.23 Sqm.
Parking Area Provided (Scooter)	2996 Sqm.
<b>Total Parking Area Provided</b>	<b>8729.23 Sqm.</b>
Total no. of Units	1872
Parking Requirement, ECS for cars 20% of 1872	375 ECS
Parking Requirement, ECS for Scooter 80% of 1872	1498 ECS
<b>Parking Provided ECS for Cars</b>	<b>375 ECS</b>
<b>Parking Provided ECS for Scooters</b>	<b>1498 Nos.</b>

#### Calculation of Greenbelt

Total Plot Area	58295.89 sqm.
Landscape area provided @ ~20.43 % of Plot Area	11908.04 Sqm.
Total No. of Trees required to be Planted @ 1 tree per 80 Sqm. of Plot Area	728 Nos.
Trees to be planted	3 tier plantation will be done as much as possible.

#### Details of Water Requirement

S. No.	Description	No. of units / Area in Sqm	Unit Population /Per flat Population	Total Population	Per Unit water consumption (lpcd)	Total water required (kld)	Fresh water required (kld)	Flushing (kld)	Total Wastewater (kld) (80% of domestic +100% Total flushing)
1	Main Dwelling Units (Residential) 1 BHK	1872	1 BHK: 4 Person	7488	100 (60+40)	749	449.28	299.52	659
2	Visitors (10% of the residential population)	...	...	748	15 (10+5)	11.22	7.48	3.74	9.72

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Subtotal -I						760	457	303.26	669
STP requirement 20% extra than waste water generated						803			
Treated water generation @80% of waste water									
Reuse of treated water									
1	Flushing	...	...	...	...	228			
2	Horticulture	11908	5 liter/sqm of Landscape area	...		60			
	DG Sets	760	2 lt./KVA/6 hr	...		2			
	Other Construction activity								
			Sub Total - II			822			

S. No.	Net Energy saved	
1.	Solar Based lighting will be done in the common areas, Signages, entry gates and boundary walls etc. @ 5% of the total Power requirement	90 KVA
2.	LED Based lighting will be done in the dwelling units	45.634 KVA
3.	Usage of energy efficient Lift (VVVF non gear lifts)	39 KVA
	Total Energy saved	174.34 KVA
	Total Energy consumption	1875 KVA
	Total Energy saving	9.31 %
	Energy saving by Residence Envelope Transmittance Value (RETV) / Energy Saving By Passive Method in Building	259 KVA 13.80%
	Total Energy Saving	433.63 KVA 23.12 %

**STATUTORY CLEARANCES :**

1	DFO Forest Distance		DFO, Ranchi Forest division vide letter no. 3135, dated 12.08.2023 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. 740, dated 08.08.2023 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
3	CO certificate	:	The CO, Nagri, Ranchi vide letter no. 1087 (ii), dated 12.08.2023 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatiyani & Register II.
4	Fire Department	:	Application for NOC from Fire Department will be submitted. After getting approval from Fire Department same will be submitted to SEIAA/SEAC Jharkhand.
5	Building Plan approval	:	Conceptual Plan submitted.
6	AAI	:	Application for NOC from AAI will be submitted. After getting approval from AAI same will be submitted to SEIAA/SEAC Jharkhand.

Based on the presentation made and information provided, the Committee decided that the proposal for Proposed Residential Housing under Pradhan Mantri Awas Yojna "ANNI Site – 2A, 2B & 3" of Jharkhand Urban Infrastructure Development Company Limited, Mauza : Anni, Tehsil : Nagri, Distt. : Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure –III alongwith the following specific conditions :

- I. Ground water to be drawn for use in the project only after obtaining permission from the Competent Authority.
- II. Only rooftop water to be recharged in to ground water after necessary filtration process.
- III. 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.
- IV. All raw material to be stored only under covered shed.
- V. 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.

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- VI. 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.
- VII. Trees should be developed & maintained not less than 15% of project area.
- VIII. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.
- IX. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- X. 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.
- XI. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- XII. 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.
- XIII. Sufficient number of EV fast charging points to be installed.
- XIV. MSW Collection centre should be located in isolated and preferably unmanned area. Movement of the vehicle carrying waste should be under tarpaulin covered condition only. Route of vehicle should be such that it avoids residential areas as far as practical.
- XV. ISO 14k EMS system standard to be followed for implementation of EMPs with MRM in place for feedback to Sr management.
- XVI. A cycling tract to be provided in residential complex so as to save on fuel and make in campus movement environment friendly.

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6. Kendu Stone Mine with Crusher of M/s Maa Kuleshwari Mining (Partners : (i) Shri Ashok Kumar Yadav (ii) Shri Amrendra Kumar Sahu), Village : Kendu, Thana no. : 110, P.S. : Simariya, Distt. : Chatra, Jharkhand (2.21 Ha).

(Proposal No. : SIA/JH/MIN/ 436145/2023)

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

This is a new project which has been taken for appraisal on 17.08.2023.

Project Category: B2 – Application for Environment Clearance

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EC Application for: Boulder Stone: 47451.21 Cum Per Annum/ 132863.40 Ton Per Annum  
 Morum: Not Present  
 DG Set: 60 KVA  
 Mobile Crusher: 1 nos. (100 TPH)

**Project and Location Details :**

Sl	Parameter	Details
1	Project Name	: Kendu Stone Mine With Crusher
2	Lessee:	: Partner- Ashok Kumar Yadav, Amrendra Kumar Sahu
3	Lease Address	: Mauza- Kendu, Thana-110, Thana + Anchal- Simariya, District- Chatra, Jharkhand
4	Lease Area	: Ha: 2.21 ha      Acres: 5.47 Acres
5	Type of Land	: Non Forest – Rayati Land
6	Project Cost	: 60 Lakhs
7	EMP Budget	: Capital: 6.3 Lakhs      Recurring: 3.0 Lakh / year
8	CSR / CER Budget	: -
9	New or Expansion	: New Project
10	Mineable Reserves	: Cu.M.: 232304.45 Cum      Tonnes: 650452.46
11	Mine Life	: 05 years
12	Man power	: 23
13	Water Requirement	: 15.8 KLD=0.8 KLD (Drinking & Domestic Uses) + 5.0 (Plantation) KLD + 10.0 KLD (Dust Suppression).
14	Water Source	: From nearby villages/Nearest Canal by tankers
15	DG Set / power	: 60 KVA
16	Crusher	: 1 nos. (100 TPH)
17	Nearest Water Body	: River, Approx. 0.53 Km towards East direction
18	Nearest Habitation	: Kendu Approx. 0.94 km towards SE
19	Nearest Rail Station	: Shivpur Railway Station, approx. 12.57 km towards SE.
20	Nearest Air Port	: Birsa Munda Airport, Ranchi approx. 88.46 km towards SE
21	Nearest Forest	: Jhirmatkoma PF, Approx. 0.39 Km towards NNE PF, Approx. 3.23 Km towards SW. PF, Approx. 5.04 Km towards NE. PF, Approx. 5.08 Km towards NE PF, App. 2.50km Towards SW Direction Simaria PF, Approx. 5.24 Km towards North Sibla PF, Approx. 6.74 Km towards SW Marka PF, Approx. 8.19 Km towards SSE
22	Road & Highways	: NH-22, Approx. 4.19 km Towards West Direction

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**CO-ORDINATES**






1	Latitude	From 24°0'17.848"N	To 24°0'11.260"N
2	Longitude	From 84°53'22.984"E	To 84°53'15.495"E

**LAND DETAILS :**

Khata No.	Plot No.
68	422 (P), 423, 424, 425 (P) & 428 (P)

**STATUTORY CLEARANCES**

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Officer, Chatra vide letter no. 370/Khanan, dated 08.04.2023.
2	CO	:	The CO, Simariya vide letter no. 697, dated 22.10.2021 has mentioned the plot no. of the project is not recorded as "Jungle- Jhari" in R.S. Khatiyon & Register II.  As per the CO certificate there are about few houses within 500 m. The PAs have submitted an EMP for the people residing in these houses.
3	DMO	:	DMO, Chatra vide memo no. 419, dated 27.04.2023 certified that no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 2184, dated 06.12.2021 certified that the proposed project site is outside Eco Sensitive Zone of Lawalong Wildlife Sanctuary.
5	DFO Forest Distance	:	Division Forest Officer, Chatra South Division vide letter no. 267, dated 09.02.2022 certified that the distance of notified forest is 284 m from proposed project site.
6	DSR	:	The DC-cum-District Magistrate, Chatra vide letter no. 516 / Khanan, dated 13.05.2023 has informed that this project is part of District Survey Report (DSR) of Chatra district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	Gram Sabha conducted on dated 21.09.2022.

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8	Mine Plan Approval	:	District Mining Officer, Chatra vide Memo No. 588/M, dated 05.06.2023.
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### Working Details

1	Mining Method	:	Open Cast Mining, OTFM (Other Fully Mechanized Method)
2	Quarry Area	:	5 years – 2.21 ha. Life of Mine – 5 Year
3	Waste Generation	:	2 years–19093 cum Life of Mine – 19093 cum
4	Stripping Ratio	:	1:0.04
5	Working Days	:	300
6	Bench: size & No	:	6m x 6m
7	Elevation of Mine	:	Highest elevation: 559 AMSL Lowest elevation: 520 AMSL
8	Ground Level Elevation	:	-
9	Ultimate Working Depth	:	520 AMSL
10	Water Table	:	500 AMSL
11	Topography of Mine	:	Flat
12	Explosive Requirement	:	-
13	Diesel/Fuel requirement	:	776 Litres/day

### Production Details

Year	Production of stone (Cum)	Production of stone (Tonne)	O.B. in cum	Intercalated waste in cum	Total waste in cum	Bench RL in Meters
1 <sup>st</sup>	47450.03	132860.10	3691	2497.37	6188.37	559-544
2 <sup>nd</sup>	47451.17	132863.30	2288	2497.43	4785.43	556- 538
3 <sup>rd</sup>	47451.21	132863.40	2600	2497.43	5097.43	556- 538
4 <sup>th</sup>	47451.08	132863.00	0.00	2497.43	2497.43	544-532
5 <sup>th</sup>	42500.95	119002.66	0.00	2236.89	2236.89	538-520
<b>Total</b>	<b>232304.44</b>	<b>650452.46</b>	<b>8579</b>	<b>12226.55</b>	<b>20805.55</b>	

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Land Use :


Land Use Pattern			
Pattern of Utilization	Existing Land use	At the end of the Plan period	At conceptual Period
	Area in Hectares	Area in Hectares	Area in Hectares
Excavation	Nil	1.77	1.77 (0.43 ha shall be backfill and rest area 1.34 ha left as water reservoir for rain water harvesting)
Waste Dump	Nil	Nil	Nil
Road	0.05	Nil within quarry	Nil within quarry
Infrastructure	Nil	Nil (Comes under quarry)	Nil (Comes under quarry)
Planation Green Belt	Nil	0.44 within safety zone	0.44 within safety zone
<b>Total</b>	<b>0.05</b>	<b>2.21</b>	<b>2.21</b>

### ENVIRONMENT MANAGEMENT

#### Green Belt Development

SL	Location		Area/Length	No. of Trees
1	Safety Zone	:	0.44 ha.	1100 trees @ 1600 trees per ha
2	Other Reclaimed Area	:	NIL	NIL
3	Safety Zone	:	0.44	1100 tree

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

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Climate Change, Govt. of Jharkhand. Records of same to be maintained and will be submitted with compliance report.

#### **Solid Waste Management**


- Waste Generation will be 20805.55 Cum during the life of mine. In 1<sup>st</sup> year of excavation a temporary waste stack will be made then after part exhausted it will be simultaneously start backfill. Some waste shall be utilized for maintenance the village road and making of approach, haul road and rest all backfilling as such, no area has been selected for waste dumping.

#### **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.

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- 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.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as protecting clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

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 Kendu Stone Mine with Crusher of M/s Maa Kuleshwari Mining (Partners : (i) Shri Ashok Kumar Yadav (ii) Shri Amrendra Kumar Sahu), Village : Kendu, Thana no. : 110, P.S. : Simariya, Distt. : Chatra, 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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Day 3 : August 18<sup>th</sup>, 2023 [Friday]

Consideration of Proposals

1. Expansion of existing Rebars & Wire Rods at Wire Rod Mill from capacity 2,67,000 TPA to 4,75,200 TPA & HC & MS GI Wires at Wire Mill from 62,050 TPA to 2,37,600 TPA and 100 TPA Graphene Powder production facility by M/s The Indian Steel and Wire Products Limited at Jamshedpur Notified Area Committee, Distt. : East Singhbhum, Jharkhand.

(Proposal No : SIA/JH/ IND1/ 440210/2023).

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

This is an expansion project which has been taken for appraisal on 18.08.2023.

M/s The Indian Steel and Wire Products Limited has made an online application vide proposal no. SIA/JH/ IND1/ 440210/2023 along with copy of EIA/EMP report seeking Environment Clearance (EC) under the provision of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) "Metallurgical Industries (Ferrous and Non-Ferrous)" under category "B" of the schedule of the EIA notification, 2006.

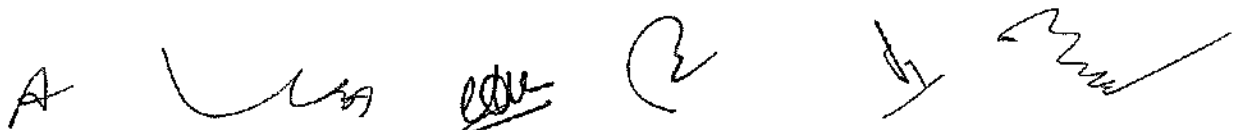
This is an expansion and modernization proposal within the existing plant premises of 27.56 ha (68.10 Acres). The project of M/s The Indian Steel and Wire Products Limited is located at Indranagar, Golmuri, Jamshedpur, Khata no. 33, Ward no. 14 of Jamshedpur Notified Area Committee, District East Singhbhum, Jharkhand.

The proposal is for Expansion of existing Rebars & Wire Rods at Wire Rod Mill from capacity 2,67,000 TPA to 4,75,200 TPA; HC, MS & GI/LRPC Wires at Wire Mill from 62,050 TPA to 2,37,600 TPA and 100 TPA Graphene Powder production facility.



The State Expert Appraisal Committee, Jharkhand deliberated the project during its 102<sup>nd</sup> meeting held on 21-25.03.2023 and SEIAA, Jharkhand has approved the ToRs in 103<sup>rd</sup> meeting held on 01<sup>st</sup> & 02<sup>nd</sup> April, 2023. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2022-23/2785/2023/23, date 12.04.2023. The final EIA / EMP submitted by PP to SEIAA on 14.08.2023 and which was forwarded to SEAC on 14.08.2023.

Environmental Site Settings :

S. No.	Particulars	Details	Remarks
1	Total Land	27.56 ha (68.10 Acres)	Industrial Land
2	Land Acquisition Details	The land is leased to ISWPL and complete land is in possession of the company.	No additional land required



		Expansion is proposed in the existing premises itself.										
3	Existence of habitation & involvement of R&R, if any	No habitation is present within the project area. Nearest habitation in study area is Manifit, Namda Basti situated adjacent to plant site in SSW direction	R&R not applicable									
4	Latitude and longitude of all corners of the project site	The project lies in between latitude 22°46'13.916" N to 22°46'38.061" N and longitude 86°13'51.326" E to 86°14'9.540" E										
5	Elevation of the project site	170 m to 172 m above mean sea level										
6	Involvement of forest land if any	No forest land is involved in the project										
7	Water body (River, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	<table border="1"> <thead> <tr> <th>Water Body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Subarnarekha River</td> <td>2.90</td> <td>North</td> </tr> <tr> <td>Kharkai River</td> <td>5.10</td> <td>West</td> </tr> </tbody> </table> <p>Project Site: RWH/Works Pond SSW Study Area: ISWP Pond – 0.1 km E Telco Pond – 0.65 km NE Tata Steel Pond – 4.65 km W Jayanti Sarovar – 5.65 km NW Dimna Lake – 9.16 NNE</p>	Water Body	Distance	Direction	Subarnarekha River	2.90	North	Kharkai River	5.10	West	
Water Body	Distance	Direction										
Subarnarekha River	2.90	North										
Kharkai River	5.10	West										
8	Existence of ESZ/ESA/National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. if any within the study area	<p>Project located outside ESZ Name of ESZ: Dalma Wildlife Sanctuary Status of Notification: Notified Distance from Project: 7 km NNE* List of RF and PF: Kamargora Protected Forest - 8.57 NW Kudada Reserve Forest - 7.48 SW Bardih Protected Forest - 7.40 N Bhelaipahari Reserve Forest - 7.3NE Dalma Wildlife Sanctuary – 7 NNE* Rahergarah Protected Forest - 5.86 NE Dhan Chatani Reserved Forest - 3.32 SE</p>	Integrated wildlife management plan has been prepared and submitted.									

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The proposed mill is located in Khata no. 33, Ward no. 14 of Jamshedpur Notified Area Committee, District East Singhbhum, Jharkhand. The project lies in between latitude 22°46'13.916" N to 22°46'38.061" N and longitude 86°13'51.326" E to 86°14'9.540" E, details of the corner coordinates are as below :

Pillar no	Latitude	Longitude
1	22°46'38.061" N	86°13'51.647" E
2	22°46'36.104" N	86°13'53.563" E
3	22°46'36.599" N	86°13'54.203" E
4	22°46'35.658" N	86°13'54.203" E
5	22°46'37.256" N	86°13'57.174" E
6	22°46'34.206" N	86°14'0.806" E
7	22°46'33.158" N	86°14'9.540" E
8	22°46'16.650" N	86°14'8.957" E
9	22°46'15.678" N	86°14'0.446" E
10	22°46'13.916" N	86°13'56.334" E
11	22°46'14.372" N	86°13'51.326" E
12	22°46'26.592" N	86°13'51.640" E

**Land details :**

Khata Number	Plot Number
33	306, 307, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 565, 566, 760, 761 (ward no. 14, Jamshedpur Notified).

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

Unit	Existing	Addition	Final (TPH)	Capacity (TPA)	Remarks
Rod Mill					

Reheating Furnace	1 x 55 TPH For 2,77,947 TPA Billets heating	Process & efficiency optimization to achieve. 1 x 60 TPH	1 x 60	4,94,683 Billets heating	Expansion through process optimization and maximum equipment efficiency utilization. No additional/new equipment installation.
Rod Mill (25 Strands)	1 x 55 TPH For 2,67,000 TPA Rebars & Wire Rods	Process & efficiency optimization to achieve. 1 x 60 TPH	1 x 60	4,75,200 Rebars & Wire Rods	
<b>Wire Mill</b>					
Wire Drawing	7 x 1 TPH For 62,050 TPA HC, MS & GI Wires	23 x 1 TPH	30 x 1	2,37,600 HC, MS & GI/LRPC Wires	Addition of new lines * The total product mix of HC, MS & GI/LRPC Wires will be maintained within 2,37,600 TPA
Galvanizing Line	1 x 7.6 TPH	1 x 7.6 TPH	2 x 7.6	1,20,000 GI Wires	
<b>Graphene Powder Facility</b>					
Pusher Furnace	1 x 0.014	-	1 x 0.014	100	No change proposed
Balling Machine					
Packaging Machine					

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

#	Section	Raw Material	Existing	Additional	Final	Source	Mode of Transportation
<b>Wire Rod Mill – annual</b>							
1	Rod Mill	Billets (T)	2,77,947	2,16,736	4,94,683	Tata Steel, others	Road
2	Wire Mill	Wire Rod (T)	63,272	1,79,009	2,42,281	In-house, others	Road
<b>Graphene Powder Facility - annual</b>							
1	Graphene Powder	Shellac, Intercalated Graphene (T)	175	-	175	Tata Steel	Road

Fuel Requirements - annual							
1	LDO/FO - Existing	Furnace Oil (KL)	9,474	7,841	17,314	IOCL	Road
2	Natural Gas* – Proposed	Natural Gas (mmbtu)	2,84,022	3,01,045	5,85,067	GAIL	Pipeline
Other Requirements - annual							
1	Wire Mill & Graphene	LPG (Existing, kg)	2,284	5,064	7,348	IOCL	Road
2	For Galvanizing	Zinc (T)	1,139	2,532	3,671	Hindustan Zinc	Road
		Lead (T)	126	281	408	Hindustan Zinc	Road
		HCL (KL)	696	1,547	2,243	Local Market	Road

The company has proposed to shift to cleaner fuel of Natural Gas within 14 months of operation of the expanded facility.




The makeup water requirement for the proposed expansion is estimated as 769 KLD which will be met through pipeline from TSUIL (Formerly JUSCO). Total makeup water requirement at final stage after expansion will be 1354 KLD.

Industrial wastewater will be about 82 KLD out of which 80 KLD rinse water from acid bath will be treated in ETP approx. 1.63 KLD water will be evaporation, sludge and other losses. 0.37 KLD Waste Pickle Liquor will be disposed to Adityapur TSDF. The existing ETP has a capacity of 40 KLD. It will be augmented and upgraded to treat 80 KLD wastewater. Domestic wastewater generated is envisaged as 38 KLD. It will be treated in STP of 900 KLD (800 + 100 KLD) capacity situated outside the plant premises operated by ISWPL.

The power requirement for the proposed expansion is envisaged as 4 MW, which will be obtained from TSUIL. Total power requirement at the final stage after expansion will be 12 MW. DG set of 250 KVA is present for backup.






**Baseline Environmental Status :**

Period	October 2021 to December 2021 (post monsoon)
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Air Environment	$PM_{10}$ – 64.8 to 98.8 $\mu\text{g}/\text{m}^3$ $PM_{2.5}$ – 30.3 to 55.9 $\mu\text{g}/\text{m}^3$ $SO_2$ – 10.2 to 18.2 $\mu\text{g}/\text{m}^3$ $NO_x$ – 22.8 to 36.6 $\mu\text{g}/\text{m}^3$
AAQ Modelling max. Incremental GLCs (with control measures)	$PM_{10}$ – 0.70 $\mu\text{g}/\text{m}^3$ $PM_{2.5}$ – 0.50 $\mu\text{g}/\text{m}^3$ $SO_2$ – 1.00 $\mu\text{g}/\text{m}^3$ $NO_x$ – 0.80 $\mu\text{g}/\text{m}^3$ at 150 m from Stack towards ENE
Groundwater Quality	pH: 7.21 to 7.44, Total Hardness: 64 to 140 mg/l, Chloride: 18.8 to 42.2 mg/l, Fluoride: 0.051 to 0.23 mg/l, Alkalinity – 60 to 132.0 mg/l, TDS: 142 to 230 mg/l
Surface Water Quality	pH: 7.12 to 7.52, DO – 6.1 to 6.8 mg/l, BOD – 2.1 to 2.6 mg/l, COD – 4.1 to 10.6 mg/l
Noise Environment	41.1 to 72.4 dB(A) at Daytime and 32.5 to 63.1 dB(A) at Night-time
Soil Environment	pH: 6.88 to 7.22, Conductivity: 349.6 to 511.6 $\mu\text{S}$ , Moisture%: 6.8 to 7.8%, Potassium: 366 to 418 kg/ha, Nitrogen: 144 to 208 kg/ha
Traffic assessment study	<ul style="list-style-type: none"> <li>• Traffic study has been conducted at Cummin's Road joining the material gate of the project, Namdih road located adjacent to project site and Telco Road, an intersection of importance.</li> <li>• Transportation of raw material and finished goods will be done 100% by road.</li> <li>• Existing PCU is 511.4 PCU/hr and existing LOS is C</li> <li>• Proposed PCU during operation phase is 740 PCU/hr and the service remains as LOS C</li> </ul>
Flora & Fauna	12 schedule-I species identified in the study area. Integrated Wildlife Conservation Plan has been submitted to PCCF vide ISWP/PCCF/IWMP/285/23 on 12/07/2023.

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

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Facility	Waste	Existing	Additional	Final	Management
<b>Solid Waste per annum</b>					
Wire Rod & Wire Mill	Scrap (T)	7,215	7,279	14,494	Used in foundry - JEMCO
	Mill scale (T)	2,732	2,258	4,990	
	Dry Burnt Lubricant (T)	72	84	156	Supplied to industrial lubricant soap manufacturing
<b>Hazardous Waste per annum</b>					
All units	Used Oil (KL)	12.9 KL	2.65 KL	15.55 KL	Stored and disposed to Authorized recyclers as per norms
Wire Mill	Lead Ash (T)	129	-	-	Stored and disposed to Authorized recyclers
	Zinc Dross (T)	155	117	272	
	Zinc Ash (T)	358	382	740	
	Waste Pickle Liquor (KL)	45	80	125	Adityapur Waste Management Pvt. Ltd. TSDF, Adityapur
ETP	Sludge (T)	77	78	155	

**Public Consultation:**

Details of advertisement	15.06.2023 in Prabhat Khabar and Times of India
Date of public consultation	24.07.2023
Venue	Tinplate Kali Mandir marriage Hall, Jamshedpur
Presiding Officer	Mr. Piyush Sinha, SDO, Jamshedpur
Major Issues Raised	<ul style="list-style-type: none"> <li>• Upgradation of basic infrastructure like road, electricity, drinking water &amp; drainage system.</li> <li>• Support on education, sports, and Health care facilities.</li> <li>• Ensure safety of the processes.</li> <li>• Ensure pollution control facilities.</li> <li>• Employment opportunity.</li> </ul>

Action plan as per MoEF&CC O.M. dated 30.09.2020.

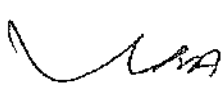




S. No.	Physical Activity and Action Plan		Year Wise Proposed Public Hearing Compliances Budget (Rs. In Lakhs)			Total Amount (Rs. In Lakhs)	Detail of the Physical Target
	Name of the Activity	Total Physical Targets	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year		
A	Education						
1	Primary education for Childrens of Basti area	40/Year	2.40	3.00	3.40	8.80	Support for education of under privilege children- Children from Birsanagar zone no. 4, 5 & 6, Ramadhin Bagan, & Gaitri Nagar of project site will be mainstreamed in schools
2	Jyoti Fellowship	30/year	2.00	2.40	2.80	7.20	Merit Base Scholarship to students of class VII std. to Post Graduation Std. under Affirmative Actions Program from Birsanagar zone no. 4, 5 & 6, Ramadhin Bagan, & Gaitri Nagar
	<b>Sub Total (Education)</b>		<b>4.40</b>	<b>5.40</b>	<b>6.20</b>	<b>16.00</b>	
B	Health						
1	Mobile Public Health camps	200 footfall/month	2.00	2.60	3.80	8.40	Primary health check-up, awareness and pathological tests for the community in Birsanagar zone

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							no. 4, 5 & 6 and Ramadhin Bagan which are close to ISWP company.
	<b>Sub Total (Health)</b>		<b>2.00</b>	<b>2.60</b>	<b>3.80</b>	<b>8.40</b>	
<b>C</b>	<b>Drinking Water</b>						
1	Assurance of Drinking water quality	Birsanagar zone number 4,5 &6	3.00	3.50	4.00	10.50	Drinking water quality regularly checked and assurance for good quality drinking water in birsanagar zone 4, 5 & 6
	<b>Sub Total (Drinking Water)</b>		<b>3.00</b>	<b>3.50</b>	<b>4.00</b>	<b>10.50</b>	
<b>D</b>	<b>Environment</b>						
2	Display of AQI/OCEMS Board at factory Main gate.	2 nos	13.00	6.00	0.00	19.00	1 nos of OCEMS board will be installed in ISWP and 1 nos in JEMCO
3	Plantation/Afforestation Drive (including sampling and protection like tree guard etc)	15000 trees	30.00	19.00	19.00	68.00	15000 trees will be planted in the nearby vicinity of plant. @ Rs.453 per plant
	<b>Sub Total (Environment)</b>		<b>43.00</b>	<b>25.00</b>	<b>19.00</b>	<b>87.00</b>	
<b>E</b>	<b>Livelihood</b>						
1	Employability of youths through Skill Development programme	20 person/Year	3.00	3.00	4.00	10.00	Skill development programme at professional institutions- ITI; TSTI, JNTVTI Burmamines; Motor Driving Training thru Maruti Driving

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							Training Institute; Nursing Training; etc.
2	Women empowerment through tailoring, beautician, hospitality, etc	15 person	0.50	1.00	1.50	3.00	Women empowerment through vocational trainings like tailoring, beautician training, hospitality training etc.
	<b>Sub Total (Livelihood)</b>		<b>3.50</b>	<b>4.00</b>	<b>5.50</b>	<b>13.00</b>	
F	<b>Infrastructure</b>						
1	Road patchwork along with Drain in the locality	Ramadhin Bagan to Rajak Samaj road - 0.5 Km	10.00	11.30	0.00	21.30	Road patchwork of 0.5 km long with drainage in Ramadhin Bagan to Rajak Samaj Road
2	Streetlights	20 nos. from Ramadhin Bagan to Rajak Samaj	2.00	4.00	2.40	8.40	20 nos. of street light facility from JEMCO bus stand to Rajak Samaj.
	<b>Sub Total (Infrastructure)</b>		<b>12.00</b>	<b>15.30</b>	<b>2.40</b>	<b>29.70</b>	
	<b>Grand Total</b>		<b>67.90</b>	<b>55.80</b>	<b>40.90</b>	<b>164.60</b>	

The existing capital cost of the project is Rs. 141 Crores, additional cost envisaged is Rs. 109 Crores. Final Project cost will be Rs. 250 Crores.

Cost for environmental protection measures is proposed as Rs. 9.29 Crores. The annual recurring cost towards the environmental protection measures is envisaged as Rs. 3.34 Crores. The details of cost for environmental protection measures are follows:

Sl. No.	Unit	Detail	Capital Cost		Operating Cost		Maintenance Cost		Recurring Cost	
			(Rs. in Lakhs)		(Rs. in Lakhs)		(Rs. in Lakhs)		(Rs. in Lakhs)	
			Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed

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1	Air	APCD (Recuperator)	50	-	5	-	5	-	10	-
2	Waste water	ETP, Fumeless Pickling	45	70	16.44	-	24.67	-	41.11	-
3	Noise	Mufflers, Acoustic Enclosures	20	20	-	-	-	1	-	1
4	Post Environmental Monitoring	Air, Water, Noise, & Soil, CAAQMS, Stack Monitoring	35	70	9	18	3	6	12	24
5	Green belt Development	Plantation	10	74.76	-	-	-	15	-	15
6	Occupational Health & Safety	Medical Health check-up, PPE, Fire safety, Natural Gas Safety	50	321.1	12	64.695	45	109.695	57	174.39
7	Public Hearing Compliances	Solar Panel & Road construction etc. as required	-	164	-	-	-	-	-	-
Sub-Total			210	719.86	42.44	82.695	77.67	131.695	120.11	214.39
Total			929.86		125.135		209.365		334.5	

Total manpower requirement for the project will remain same as 674. Locals will be employed during the construction phase.

Existing greenbelt has been developed over 6.14 ha which is about 22.27% of the total project area. Gap plantation will be undertaken in the same. A 10 m wide greenbelt consisting of at least 3 tiers around the plant boundary will be developed as greenbelt and green cover. Additionally, a 4.04 ha area has been identified for plantation outside the plant premises. Local and native species will be planted with a density of 2500 trees per hectare. A total of 15,523 saplings will be

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planted and nurtured over the combined area of 10.18 ha in 3 years. Total plantation area i.e. 10.18 ha. will be 36.93% of the plant area and approx. 33% of the total area.

**STATUTORY CLEARANCES :**

1	LOI/Lease docs	:	The land owned by Tata Steel for the period of 99 years vide lease deed no. 7415-7051, dated 01.06.1935.
2	CO	:	The CO, Jamshedpur, East Singhbhum vide memo no. 2359, dated 07.12.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar & Register II.
3	DFO Wild Life	:	DFO, Dalma Elephant Project vide letter no. 1811, dated 13.12.2022 certified that the proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary.
4	DFO Forest Distance	:	DFO, Jamshedpur Forest Division vide letter no. 3048, dated 15.12.2022 certified that the distance of reserved / protected forest is more than 250 m from project site.
5	Consent to Establish (CTE) & Consent to Operate (CTO)	:	<b>Combined Consent (CTE &amp; CTO)</b> issued by JSPCB vide Ref. no. JSPCB/RO/JSR/CTE/CTO-6875830/2019/49, dated 10.12.2019.
6	Consent to Establish (CTE)	:	CTE issued by JSPCB vide Ref. no. : i. JSPCB/HO/RNC/CTE-6149603/2020/85, dated 07.02.2020. ii. JSPCB/HO/RNC/CTE-6419916/2020/84, dated 07.02.2020.
7	Consent to Operate (CTO)	:	<b>CTO</b> granted by JSPCB vide Ref. no. : i. JSPCB/RO/JSR/CTO-9498890 /2021/50, dated 15.03.2021. ii. JSPCB/HO/RNC/CTO-11018282 /2023/226, dated 02.02.2023.
8	Hazardous Waste Authorization	:	JSPCB/HO/RNC/HWM-1685952 / 2018 / 30, dated 08.04.2018.
9	Public Hearing	:	JSPCB vide Ref. no. PC/P.H./JSPCB/62/05-2023/B-1598, dated 13.06.2023 informed that Public Hearing conducted on 24.07.2023.

There are no violations, court cases, show cause or direction issued by any authority against the project as informed by project proponent.

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Environment consultant Visiontek Consultancy Services Pvt. Ltd. (VCSPL) has been accredited by NABET, QCI as per the NABET Certificate No.: NABET/EIA/2023/RA 0209, dated 29.06.2021. – Valid up to 16th December 2023.

Based on the presentation made and information provided, the Committee decided that the proposal for Expansion of existing Rebars & Wire Rods at Wire Rod Mill from capacity 2,67,000 TPA to 4,75,200 TPA & HC & MS GI Wires at Wire Mill from 62,050 TPA to 2,37,600 TPA and 100 TPA Graphene Powder production facility by M/s The Indian Steel and Wire Products Limited at Jamshedpur Notified Area Committee, Distt. : 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. Process water and storm water to be handled separately and should not be mixed.
- II. Treated effluent water to be reused suitably and shall not be discharged outside.
- III. Ground water to be drawn for use in the project only after obtaining permission from the Competent Authority.
- IV. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.
- V. All raw material to be stored only under covered shed.
- VI. PAs to offset (upto 20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.
- VII. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load. It is to be achieved by solar panels etc meeting ECBC norms.
- VIII. Trees should be developed & maintained not less than 33% of project area.
- IX. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- X. 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.
- XI. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- XII. MSW Collection centre should be located in isolated and preferably unmanned area. Movement of the vehicle carrying waste should be under tarpaulin covered condition only. Route of vehicle should be such that it avoids residential areas as far as practical.
- XIII. ISO 14k EMS system standard to be followed for implementation of EMPs with MRM in place for feedback to Sr management.

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2. Tokisud Block II Coal Mine of M/s Twenty First Century Mining Private Limited, Village : Mahuatoli, Mahuatola (Ford), Tehsil : Patratu, Distt. : Ramgarh, Jharkhand (Allotted area : 220 Ha Lease Area : 190.43 Ha).

(Proposal No. : SIA/JH/CMIN/ 431000/2023).

The project has been allotted an area of 220 Ha by the Ministry of Coal, Govt. of India vide allotment order no. NA-104/7/2022-NA, dated 08.02.2023.

This allotted area of 220 Ha includes parts of Damodar River.

The Project Authorities have applied for EC over an area of 190.43 Ha which is stated as the lease area.

However, the PAs could not produce any authenticated documents for this lease area of 190.43 Ha. They further stated that the mine plan is under preparation and to be approved by Ministry of Coal, Govt. of India.

Thus, in the absence of any authenticated documents the Project Authorities have been asked to submit the Approved Mine Plan as a basis for consideration of 190.43 Ha as the lease area.

The project will be taken up for consideration after submission of Mine Plan duly approved by Ministry of Coal, Govt. of India.



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3. Proposed Group Housing Residential Project "Green Ville Phase - II" of M/s RG Infra, Village : Muramkala, Tehsil : Ramgarh, Distt. : Ramgarh, Jharkhand.

(Proposal No. : SIA/JH/INFRA2/ 439945/2023).

Application for new EC has been filed in the name of "Green Ville Phase - II". During discussion it was revealed that another project named Green Ville Phase - I is in existence. Both the projects are within common premises. Hence, the Committee is of the view that a site visit will be undertaken before consideration of the project for EC.

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4. Expansion of Residential Complex "Samriddhi Park" of M/s Ilika Estate Pvt. Ltd., Village : Arra, Tehsil : Tatisilway, Arra Gate, Namkum, Distt. : Ranchi, Jharkhand.

(Proposal No. : SIA/JH/INFRA2/ 436641/2023).

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

This is a expansion project which has been taken for reappraisal on 18.08.2023.

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

The project was awarded EC under violation category by SEIAA, Jharkhand vide letter no. EC/SEIAA/2021-22/2550/2022 dated 12/08/2022 for the built-up area 43807.44 sq m.

The expansion of the project will include the expansion for the part: -

- Meditation centre and + new area added on Ground floor of Block 1,2,3 & 4.
- New area added on 2nd floor of 4A.

EC Application for : Built-up area of 44807.44 sq m. (After Expansion)

Project and Location Details :

Parameters	Description
Plot Area	19476.76 m <sup>2</sup>
Location	Village Arra, Thana Tatisilway, Arra Gate, Namkum Ranchi, Jharkhand
Project Cost	INR 58 Crores
Built-up Area	44807.44 m <sup>2</sup>
Green Area	4040.60 m <sup>2</sup> (@20.75% of plot area)
Population	2211 Nos.
Water Requirement	129 KLD
Fresh Water Requirement	73 KLD
Wastewater Generation	90 KLD
STP Capacity	120 KLD
Total Municipal Waste	611 kg/day
Power Requirement	1400 KVA (Jharkhand State Electricity board)
DG Sets	320 KVA (2 numbers)
RWH Pits	3 Nos.



Parking	353
Connecting road	SH 1 (0.2 km, N)
National Highway & Roads	SH 1 (0.2 km, N).
Nearest Railway Station	Ranchi Junction (7.0 km, West)
Airport	Birsa Munda Airport 9.8 km, SW)
Nearest Hospitals	<ul style="list-style-type: none"> <li>• Shree super specialty hospital(1.29 km, NW)</li> <li>• RC Mission Middle School (0.1 km, W)</li> <li>• Rajkiya Hansraj Wadhwa High School (1.9 km, NW)</li> <li>• St Katherine High School (0.6 km, S)</li> <li>• Sarala Birla Public School (1.3 km, NE)</li> <li>• Military Hospital (2.4 km, W)</li> <li>• Dwarika Hospital &amp; Research Centre (3.5 km, E)</li> </ul>

#### CO-ORDINATES

Coordinates	23.350893°N	85.402074°E
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Khata no. & Plot no. of the project :

Khata no.	Plot no.
58	1608
8	1823
66	1825

#### AREA SUMMARY:

S. No.	Description	Area (sq m)	Expansion Area	Total Area
1	Plot Area	19476.76	-	19476.76
2	Road Widening	265.03	-	265.03
3	Net Plot Area	19,211.73	-	19,211.73
4	Ground Coverage (@29.54% of plot area)	5753.47	-	5753.47

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5	Permissible FSI (@2.5 of plot area)	48,691.9	-	-
6	Proposed FSI (@1.98)	38,563.98	-	-
7	Non FAR Area	5,243.45	-	-
8	Built-up area	43807.44	1000	44807.44
9	No of Dwelling Units	344	-	344
10	Height	27 m	-	27 m
11	Green Area (%20.84)	4040.60	-	4040.60

### STATUTORY CLEARANCES

1	DFO Forest Distance	:	DFO, Ranchi Forest Division vide letter no. 515, dated 09.02.2021 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
2	DFO Wild Life	:	DFO, Wildlife Ranchi Division vide letter no. 92, dated 10.02.2022 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
3	CO certificate	:	The CO, Namkum, Ranchi vide letter no. 460 (ii), dated 19.02.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar.
4	AAI NOC	:	Airport authority of India issued NOC vide NOC ID RANC/EAST/B/111520/510320 date 27.11.2020 valid up to 25.11.2028.
5	Fire Department	:	A fire advisory has been issued by Fire Department, Jharkhad, Ranchi vide letter no. 91/tech/2021 dated 07.01.2021
6	Building Plan	:	Conceptual Plan submitted.
7	Environmental Clearance (EC)	:	EC has been granted by SEIAA under violation category vide letter no. EC/SEIAA/2021-22/2550/2022/222, dated 06.08.2022.
8	Certified Compliance report of previous EC conditions	:	The PAs have applied to the Regional Office, MoEF&CC, Govt. of India, Ranchi vide letter dated 27.06.2023 to carry out necessary site visit and issue status of compliance of previous EC conditions. However, there was no response to the application by Regional Office, MoEF&CC, Govt. of India, Ranchi.

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As per MoEF&CC, Govt. of India OM no. J-11013/6/2010-IA.II(part), dated 07.09.2017, the PAs have obtained the certified compliance report from JSPCB, Regional Office vide letter dated 03.08.2023.

**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
Domestic					
Residents	1983	50	100	70	30
Staff	30	45	1.35	0.85	0.5
Visitors	198	30	2.97	1.97	1.0
Total Domestic Water Demand			104	73	31
Landscape	4040.6 sq m	5 l/day	20.2	0	20.2
DG cooling	2*320 KVA	0.9l/KVA/day	5	0	5
Total		-	129	73	56

**Wastewater Calculations**

Category	Total Quantity (KLD)
Fresh water Req.	73
Flushing water Req.	31
Sewage generation (@80% of the fresh water consumption + 100% flushing water)	90
Capacity of STP	120
Recovered water from STP	81
1. Flushing	31
2. Landscaping	20.2
3. DG cooling	5
4. Car Washing/Road Washing/Sewer	24

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## Solid Waste Requirement

S. No	Description	Occupancy/Area	kg/capita/day	Total Solid Waste Generation (kg/day)	To be Disposed (Kg/day)	Recyclable (kg/day)
1.	Residents	1983	0.3	594.9	415.9	179
2.	Staff	30	0.2	6.0	4.2	1.8
3.	Visitors	198	0.05	9.9	6.7	3.2
Total Waste Generated				610.8	426.8	184

## ENVIRONMENT MANAGEMENT

### Green Belt Development

- Combination of local trees and shrubs are planned within the project site.
- Green area will be provided in 4040.60 m<sup>2</sup> (@20.75% 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

#### ❖ Collection, Segregation and treatment of waste

- a. Door to door collection system will be provided for collection of domestic waste
- b. Local vendors will be hired for waste collection, management and disposal
- c. Separate colored bins for compostable (wet waste), recyclables and rejected waste will be provided to residents as well as in common and open areas
- d. Wet waste will be composted within the site in Organic Waste Convertor

#### ❖ Disposal

- a. Rejected fraction of the waste will be collected and disposed by local agencies on daily basis at the locations designated by Nagar Parishad. Recyclable waste and E-waste will be sold to authorized vendors
- b. Used oil from DG sets will be sold to authorized vendors

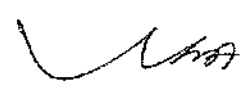




### Water Quality Management

#### During Construction Phase

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

#### During Operation Phase

- STP of capacity i.e 120 KLD is proposed for treatment of wastewater.
- Treated waste water would be reused for Flushing, landscaping and road washing

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- Use of water efficient plumbing fixtures to conserve water.
- Approx.73 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 street lights will be provided at site.

Based on the presentation made and information provided, the Committee decided that the proposal for Expansion of Residential Complex "Samriddhi Park" of M/s Ilika Estate Pvt. Ltd., Village : Arra, Tehsil : Tatisilway, Arra Gate, Namkum, Distt. : Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure –III alongwith the following specific conditions :

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

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- VIII. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- IX. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.
- X. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- XI. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.
- XII. Sufficient number of EV fast charging points to be installed.
- XIII. MSW Collection centre should be located in isolated and preferably unmanned area. Movement of the vehicle carrying waste should be under tarpaulin covered condition only. Route of vehicle should be such that it avoids residential areas as far as practical.
- XIV. ISO 14k EMS system standard to be followed for implementation of EMPs with MRM in place for feedback to Sr management.
- XV. A cycling tract to be provided in residential complex so as to save on fuel and make in campus movement environment friendly.

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**5. Proposed Affordable Housing Project "The Habitat" of M/s Uгна Buildwell Pvt. Ltd., Mauza : Bargain, Tehsil : Ranchi, Distt. : Ranchi, Jharkhand.**

(Proposal No. : SIA/JH/INFRA2/ 439690/2023).

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

This is a new project which has been taken for appraisal on 18.08.2023.

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

EC Application for: Proposed Residential project: Total built-up area 42552.46 sq m.

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.

**Project and Location Details :**

Parameters	Description
Plot Area	8482.086 sqm (0.85 ha/2.09 acres).

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Project Cost	INR 70 Crores
Built-up Area (@3.5F.A.R)	42552.46 sq. m.
Green Area (@ 34.47% of plot area)	2923.93sq m
Population	1473
Water Requirement	166KLD
Fresh Water Requirement	99 KLD
Wastewater Generation	123 KLD
STP Capacity	150 KLD
Total Municipal Waste	731kg/day
Power Requirement	Maximum power demand for the project during operation phase is estimated to be 1500 KW. Source of power will be Jharkhand State Electricity board.
DG Sets	500 kVA (2 nos. of DG sets of 250 kVA each)
RWH Pits	5no.
Parking Area	2410sqm
Connecting road	Booty Road (approx 0.75 km, South)
National Highway	NH 20 (approx 1.70 km, SE)
Nearest Railway Station	Mesra Railway Station (approx 4.95 km, ENE)
Airport	Birsa Munda Airport (Ranchi), (approx 11.00 km, SSW)
Nearest Hospitals	Synergy Global Hospital (approx 0.78 km , SSE)
Nearest Water Bodies	<ul style="list-style-type: none"> <li>• PHD ChhathTalab (approx 0.67 km, SSE)</li> <li>• Jumar River (approx 2.90 km, NW)</li> <li>• Booty Talab (approx 1.50 km, East)</li> <li>• Potpoto River (approx, 3.30, NW)</li> <li>• Kanke Dam ( approx 7.07 km, West)</li> <li>• Subarnarekha River (approx, 7.80 km, West)</li> </ul>

**CO-ORDINATES**

Point as in Maps	Latitude	Longitude
1	23°24'26.70"N	85°22'18.76"E

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2	23°24'27.76"N	85°22'19.06"E
3	23°24'25.93"N	85°22'19.68"E
4	23°24'27.80"N	85°22'19.74"E
5	23°24'27.20"N	85°22'21.25"E
6	23°24'25.09"N	85°22'23.66"E
7	23°24'25.42"N	85°22'23.93"E
8	23°24'26.08"N	85°22'24.37"E
9	23°24'25.26"N	85°22'24.55"E
10	23°24'24.66"N	85°22'24.60"E
11	23°24'26.09"N	85°22'25.22"E
12	23°24'24.34"N	85°22'25.43"E
13	23°24'24.74"N	85°22'25.55"E
14	23°24'24.99"N	85°22'25.87"E
15	23°24'26.05"N	85°22'26.10"E

**Land Details :**

Khata No.	Plot No.
03	2388 (P)
49	2389 (P) & 2413 (P)
117	2381 (P), 2386 (P) & 2387 (P)

**Area Summary**

S. NO.	DESCRIPTION	AREA (SQ M)
1	Total plot area	8482.086
2	Proposed Ground Coverage (@ 32.64 % of plot area)	2768.88
3	Proposed FAR (@ 3.5)	29687.301
4	Non FAR Area (Staircase, Lift, Balcony, Ramp, Accessory Use, Basement Parking, Stilt)	12865.159
	<b>Built-up Area (D+C)</b>	<b>42552.46</b>
6	Green Area (@34.47% of plot area)	2923.93

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7	Open/Road/Paved area(@34 % of plot area)	2970
8	Height (m)	53.4 m
9	No of Dwelling Units	252

### STATUTORY CLEARANCES

1	DFO Forest Distance	: DFO, Ranchi Forest Division vide letter no. 3136, dated 12.08.2023 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
2	DFO Wild Life	: DFO, Wildlife Ranchi Division vide memo no. 622, dated 06.07.2023 certified that the proposed project site is outside Eco Sensitive Zone of Palkot Wildlife Sanctuary.
3	CO certificate	: The CO, Baragai, Ranchi vide letter no. 397(ii), dated 15.06.2023 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S. Khatyan.
4	Fire Department	: A Fire Advisory has been issued by Fire Department, Jharkhand, Ranchi vide memo no. 4600/tech./2023 dated 09.08.2023.
5	Building Plan	: Conceptual Plan submitted.
6	AAI	: Airport authority of India issued NOC vide NOC ID RANC/EAST/B/060522/675821, dated 22.06.2022 valid up to 21.06.2030.

### 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	1403	100	140	98	42
Staff	28	45	2	0.6	1.4
Visitors	70	15	1	0.4	0.6
<b>Total Domestic Water Demand</b>			<b>143</b>	<b>99</b>	<b>44</b>
Landscape	2923.93 sqm	6 ltr/sqm	18	-	18

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Fire Fighting			1	-	1
DG cooling	500 KVA(1*250- +1*250)	0.9 l/kVA/hr	4	-	4
<b>Total</b>		-	166	99	67


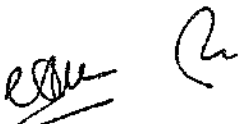


(D.G. sets operation period is 8 hrs.)

#### Wastewater Calculations

Category	Total Quantity (KLD)
Domestic (fresh) water Req.	99
Flushing water Req.	44
Sewage generation (@80% of the Domestic + 100% flushing water requirement)	123
Capacity of STP	150
Recovered water from STP (90% of Waste water)	111
1. Flushing	44
2. Landscaping	18
3. Fire Fighting	1
4. DG cooling	4
5. sewer	44

#### 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	1403	0.5	702	562	140
2.	Staff	28	0.25	7	5.4	1.35
3.	Visitors	70	0.15	10	8.04	2.01
5.	Landscape waste	0.72 acres	2 kg/acres	2	2	-
5.	STP sludge	150 KLD	--	10	10	-
<b>Total Waste Generated</b>				<b>731</b>	<b>587</b>	<b>144</b>

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## 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 2923.93sq m (34.47 % of the plot area) which will enhance the beauty of the site and help combat air and noise pollution.
- The plant species will be selected on the basis of Guidelines for Developing Green Belts, CPCB March 2000.

### Solid Waste Management

#### During Construction Phase

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






#### During Operation Phase

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

### Water Quality Management

#### During Construction Phase

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

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### During Operation Phase

- STP of capacity i.e. 150 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. 99 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

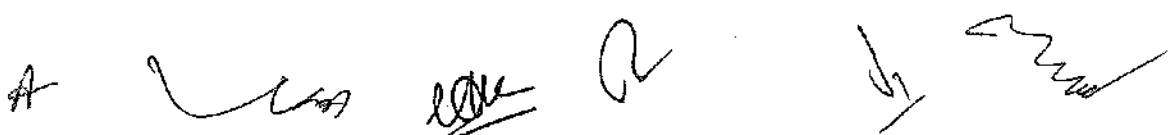
- Energy will be conserved via solar power & LED of at least 13 % of the total power requirement. Out of which total 2 % of energy will be produced by solar panel.

### Undertaking

- An affidavit stating that no construction work.
- An undertaking that 111m<sup>3</sup>/day recycles waste water generated at Proposed Affordable Housing Project "The Habitat" located at Plot no. 2386,2387,2388,2389, 2413 & 2381, Khata No. 3,49 & 117, Mauza (Village) - Bargain, Tehsil-Ranchi, Jharkhand.
- An undertaking that 1500 KW Power requirement in Proposed Affordable Housing Project "The Habitat" located at Plot no. 2386,2387,2388,2389, 2413 & 2381, Khata No. 3,49 & 117, Mauza (Village) - Bargain, Tehsil-Ranchi, Jharkhand.

Based on the presentation made and information provided, the Committee decided that the proposal for Proposed Affordable Housing Project "The Habitat" of M/s Uгна Buildwell Pvt. Ltd., Mauza : Bargain, Tehsil : Ranchi, Distt. : Ranchi, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure –III alongwith the following specific conditions :

- I. Ground water to be drawn for use in the project only after obtaining permission from the Competent Authority.



- II. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.
- III. All raw material to be stored only under covered shed.
- IV. PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.
- V. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load. It is to be achieved by solar panels etc meeting ECBC norms.
- VI. Trees should be developed & maintained not less than 15% of project area.
- VII. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.
- VIII. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- IX. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.
- X. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- XI. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.
- XII. Sufficient number of EV fast charging points to be installed.
- XIII. MSW Collection centre should be located in isolated and preferably unmanned area. Movement of the vehicle carrying waste should be under tarpaulin covered condition only. Route of vehicle should be such that it avoids residential areas as far as practical.
- XIV. ISO 14k EMS system standard to be followed for implementation of EMPs with MRM in place for feedback to Sr management.
- XV. A cycling tract to be provided in residential complex so as to save on fuel and make in campus movement environment friendly.

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6. Baliari Stone Deposit of Shri Suresh Kumar Jhanjhri, Village : Baliari, Thana : Tisri, Thana no. : 135,, Distt. : Giridih, Jharkhand (1.64 Ha).

(Proposal No. : SIA/JH/MIN/ 439950/2023).

Project Category : B2 – Application for Environment Clearance




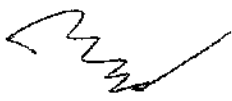
EC Application for: Stone: 13,087 Cu.M. / year i.e 36,644 Tonnes / year

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

This is a new project which has been taken for appraisal on 18.08.2023.

**Project and Location Details :**

Sl	Parameter	Details	
1	Project Name	: Baliari Stone Deposit of Sri Suresh Kumar Jhanjhri.	
2	Applicant Address:	: Sri Suresh Kumar Jhanjhri At - 541, Jhanjhari Niwas, Near Railway Crossing, P.O.+ P.S.– Jhumri Tilaiya, District – Koderma, State – Jharkhand, Pin Code – 825409	
3	Applied Area Address :	: In Mouza - Baliari, Thana – Tisri, Thana No. - 135, District - Giridih, Jharkhand	
4	Applied Area	: Ha: 1.64 Hectares	Acres: 4.05 Acres
5	Type of Land	: Non Forest – Raiyati Land	
6	Project Cost	: 46 Lakhs	
7	EMP Budget	: Capital: 11.13 Lakhs	Recurring: 6.39 Lakh / year
8	CSR / CER Budget	: Rs. 0.92 Lakhs	
9	New or Expansion	: New	
10	Mineable Reserves	: Cu.M.: 65,284 Cu. M.	Tonnes: 1,82,795 Tonnes
11	Mine Life	: 5 years	
12	Man power	: 30	
13	Water Requirement	: 15.80 KLD Drinking: 0.30 KLD, Dust Suppression: 5.56 KLD, Plantation: 9.94 KLD	
14	Water Source	: From nearby authorized sources.	
15	DG Set / power	: No	
16	Crusher	: No	
17	Nearest Water Body	: Balkushi Nadi is flowing near about 2.97 Km away in the South west direction from the applied area.	
18	Nearest Habitation	: Baliari village is situated approx. 0.57 Km aerial distance away in South East direction. Chagalmunda village is situated approx. 0.58 Km aerial distance away in North East direction.	

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19	Nearest Rail Station	:	Duriatanr Halt Railway Station is situated approx. 16.23 Km aerial distance away in South East direction. Dhanwar Railway Station is situated approx. 18.32 Km aerial distance away in South West direction.
20	Nearest Air Port	:	Gaya International Airport - Bodh Gaya, Bihar is situated approx. 116.63 Km aerial distance away in North-West direction.
21	Nearest Forest	:	Nearest forest land is 300m away from the proposed project.
22	Road & Highways	:	Highway: SH-13 is about 10.91 Km aerial distance away from the applied area in South West direction Approach Road: Khijuri - Baliari Road is about 0.16 Km away.

#### CO-ORDINATES





1	Latitude	:	From N24°33'13.89658"	To N24°33'20.92975"
2	Longitude	:	From E86°04'33.90427	To E86°04'45.09073"

#### LAND DETAILS

Khata No -	5	6	13	18	19
Plot Nos -	140(P), 141, 143, 144	124(P), 160, 222(P)	155	138(P)	123, 142, 146, 148, 149

#### STATUTORY CLEARANCES

1	LOI / Lease docs	:	The Letter of Intent (LoI) has been issued by District Mining Office, Giridih vide letter no. 705/M dated 26.06.2023.
2	CO	:	The CO, Tisri vide letter no. 225, dated 24.05.2023 has mentioned the plot no. of the project is not recorded as "Jungle - Jhari" in Khatiyani. As per the CO certificate there are about 4-5 Kacha houses within 500 m. The PAs have submitted an EMP for the people residing in these Kacha houses.
3	DMO	:	DMO, Giridih vide memo no. 861/M, dated 10.08.2023 certified that there is no other mining lease area exists within 500 m radius from proposed project site.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh, vide letter no. 885, dated 03.05.2023 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi.

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5	DFO Forest Distance	:	Division Forest Officer, Giridih East Forest Division vide letter no. 1780, dated 26.05.2023 certified that the distance of notified forest is 300 m from proposed project site.
6	DSR	:	The DC – cum - District Magistrate, Giridih vide letter no. 756/M, dated 10.07.2023 has informed that this project is part of District Survey Report (DSR) at Giridih district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	Gram Sabha conducted on 21.05.2023.
8	Mine Plan Approval	:	Approved by the District Mining Officer, Giridih vide Letter No. 851/M dated 05.08.2023.

### Working Details

1	Mining Method	:	Opencast Mechanized Mining.
2	Quarry Area	:	5 years – 0.69 Ha
			Life of Mine – 0.69 Ha
3	Waste Generation	:	5 years–6940 Cu.M (Gritty Soil & Intercalated Waste)
			Life of Mine – 6940 Cu.M (Gritty Soil & Intercalated Waste)
4	Stripping Ratio	:	1 : 0.04
5	Working Days	:	300 Days
6	Benches: size & No	:	Size: 6m x 6m, No. – 4.
7	Elevation of Mine	:	Highest RL 332m AMSL, Lowest RL 328m AMSL
8	Ground Level Elevation	:	328m AMSL
9	Ultimate Working Depth	:	308m AMSL
10	Water Table	:	299m AMSL
11	Topography of Mine	:	Gently sloping land.
12	Explosive Requirement	:	9.45 Tons/year
13	Diesel/Fuel requirement	:	42 KL/year ( 140 Litres/day)

### Production Details

Year	Production of stone		Removal of Gritty Soil (Cum)	Intercalated Waste Generation (CuM)	Bench RL in Meters
	(Cum)	(Tonne)			
1st Year	13,029	36,482	935	685	332m – 326m
2nd Year	13,048	36,534	715	687	332m – 320m
3rd Year	13,041	36,514	1855	686	332m – 326m
4th Year	13,087	36,644	Nil	689	326m – 320m

5th Year	13,079	36,621	Nil	688	326m – 308m
<b>Total</b>	<b>65,284</b>	<b>1,82,795</b>	<b>3505</b>	<b>3435</b>	

### Land Use

SL	Pattern	Existing Land Use (Ha)	Proposed Current Plan Period (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Proposed Land Use at End of Life of Mine (Ha)	Land Usage at Conceptual Stage
1	Mining Area (Quarry)	0.029	0.69 (including backfilling 0.18 Ha)	0.69 (including backfilling 0.18 Ha)	0.15	Back fill
					0.54	Water body
2	Green Belt Within Safety Barrier	Nil	0.92	0.92	0.92	Plantation
3	Road	0.014	--	--	--	--
4	Non Mining Area	00	0.03	0.03	0.03	Plantation
5	Unutilized	1.597	Nil	Nil	Nil	--
	<b>TOTAL</b>	<b>1.64</b>	<b>1.64</b>	<b>1.64</b>	<b>1.64</b>	

### ENVIRONMENT MANAGEMENT

#### Green Belt Development

SL	Location	Area / Length	No of Trees
1	Safety Zone	0.92 Ha	2300 trees @ 2500 trees per Ha
2	Haul / Approach Road	0.064 Ha	108 trees on both sides – 334 plan per km or 3m center to center spacing
		i.e. Length 0.16 Km width 2m X both side	
3	Blocked Area (due to road safety)	0.03 Ha	75 trees @ 2500 trees per Ha

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

- Waste (Gritty Soil & Intercalated Waste) Generation will be 6940 Cu.M. during the life of Mine.
- The area is covered with a layer of gritty soil. During quarry development in 1st, 2nd & 3rd year gritty soil and intercalated waste will be removed and this gritty soil & waste material will be backfill within the exhausted quarry & in 4th & 5th year removed intercalated waste will be used in haul road dressing.

### **Water Quality Management**

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

### **Air Quality Management**

- Dust extractor or wet drilling shall be followed to control dust at source of emission during drilling.
- Sharp drill bits will be used for drilling and re-grinding 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





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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 water required for the mining activities shall be supplied by the tanker from nearby authorized sources.
- c. The letter issued in respect of District Survey Report (DSR), is issued by the competent authority. I will abide by any directives issued by any court of law in future.
- d. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- e. The Boundary Pillars of the proposed mine applied area will be maintained properly.
- f. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- g. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- h. Sufficient water spray using water tankers will be done for effective dust suppression within the mine applied area and on haul roads.
- i. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- j. If any tree felling than necessary permission shall be taken from the competent authority.
- k. Slope of the water bodies to be stabilized using gabion plantation crated at the end of the life of the mine.
- l. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of the life of the mine.
- m. Personal protective equipments such as protecting clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

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 Baliari Stone Deposit of Shri Suresh Kumar Jhanjhri, Village : Baliari, Thana : Tisri, Thana no. : 135,, Distt. : Giridih, Jharkhand (1.64 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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7. Thambh Stone Deposit of M/s Anand Mines & Minerals (Prop. : Shri Anand Rajesh), Village : Thambh, Thana : Chandwara, Distt. : Koderma, Jharkhand (0.52 Ha).

(Proposal No. : SIA/JH/MIN/ 303200/2023).

Project Category: B2 – Application for Environment Clearance (For Amendment)

EC Application for: Proposed Capacity- 19350.0 cum/annum or 52245.0 TPA

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

This is an amendment project which has been taken for appraisal on 18.08.2023.

Thambh Stone Deposit obtained Environmental Clearance vide SEIAA Letter NO EC/SEIAA/2022-23/2787/2023/17, dated 12/04/2023 considering the project area 1.4025 Acres or 0.57 ha.

The DFO, Koderma forest Division vide its letter no 5027 dated 22/12/2022 informed that the distance of lease boundary from notified forest considering the area - 1.4025 acre lies only 245 M.

In View of the above, the mining lease area of Thambh Stone Deposit is reducing from 1.4025 acre to 1.2892 acres. While considering the area 1.2892 Acre the distance of notified / demarcated forest from the proposed ML area became 252 m as per DFO, Koderma Forest Division vide letter no. : 863, dated 24.02.2023.

**Project and Location Details:**

Sl	Parameter	Details	
1	Project Name	: Thambh Stone Deposit	
2	Lessee:	: M/s Anand Mines & Minerals Prop. -Sri Anand Rajesh S/o- Sri Captain Anand, At+P.O. -Jhumritilaiya, P.S.-Tilaiya, District-Koderma, Jharkhand	
3	Lease Address	: Village – Thambh, Thana-Chandwara, District – Koderma, State :- Jharkhand.	
4	Lease Area	: 0.52 ha	Acres- 1.2892 Acre
5	Type of Land	: Non Forest – Raiyati Land	
6	Project Cost	: Rs. 20 Lakhs	
7	EMP Budget	: Capital: 2.715 Lakhs	Recurring: 4.27 Lakh / year
9	New or Expansion	: New	
10	Mineable Reserves	: Cu.m.: 192100 cum	Tonnes: 518670.0
11	Mine Life	: 10 years	
12	Man power	: 16	
13	Water Requirement	: 5.20 KLD (Drinking: 0.16 KLD, Dust Suppression: 2.89 KLD, Plantation: 2.09 KLD)	
14	Water Source	: From Nearby villages by tankers	
15	DG Set / power	: 200 kVA	

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16	Crusher	:	No
17	Nearest Water Body	:	Margoja Nadi, Approx. 2.5 km towards WNW direction of mine site. Tilaiya Reservoir, Approx. 3.50 km towards SSW direction of mine site.
18	Nearest Habitation	:	Chandwara, 6.5 km
19	Nearest Rail Station	:	Urwan Railway station, approx. 7.50 km towards SE direction.
20	Nearest Air Port	:	Gaya Airport, approx. 61.0 km towards NW direction.
21	Nearest Forest	:	Protected Forest Approx. 0.4 km towards NNW direction of mine site.
22	Road & Highways	:	NH-20, Approx. 7.0 km. in EAST direction. NH-19, Approx. 9.0 km in SSW direction.

#### CO-ORDINATES

1	Latitude	From 24°24'07.28"N	To 24°24'12.64"N
2	Longitude	From 85°24'53.48"E	To 85°24'56.86"E

#### LAND DETAILS :

Khata No.	Plot No.
38	68 & 69
45	64 (P)
53	61
76	63 (P)
96	60 (P)

#### STATUTORY CLEARANCES :





1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Koderma vide memo no. 469/M, dated 04.03.2023.
2	CO	:	The CO, Chandwara vide letter no. : 661, dated 08.09.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar & Register II.  As per the CO certificate there are 14 houses within 500 m. The PAs

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		have submitted an EMP for the people residing in these houses.
3	DMO	: DMO, Koderma vide memo no. 479/M, dated 06.03.2023 certified that 01 other mining lease area (0.92 Acre) exists within 500 m radius from proposed project site and total area is 2.3225 Acre.
4	DFO Wild Life	: DFO, Wildlife Hazaribagh vide letter no. : 1789, dated 10.09.2022 certified that the proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.
5	DFO Forest Distance	: DFO, Koderma Forest Division vide letter no. : 863, dated 24.02.2023 certified that the distance of reserved / protected forest is 252 m from proposed project site.
6	DSR	: The DC – cum – District Magistrate, Koderma vide letter no. 480/M, dated 06.03.2023 has informed that this project is part of District Survey Report (DSR) of Koderma district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	: Gram Sabha conducted on 28.08.2022.
8	Mine Plan Approval	: DMO, Koderma vide letter no. 1549, dated 11.08.2023.
9	Previous Environmental Clearance (EC)	: Previous EC granted by SEIAA vide letter no. EC/SEIAA/2022-23/2787/2023/17, dated 12.04.2023.

### Working Details

1	Mining Method	: Opencast mechanized mining method	
2	Quarry Area	: 0.52 ha	Life of Mine – 10 years
3	Waste Generation	: 5 years– 1495.0 cum or 4036.5 tons	
4	Stripping Ratio	: 0: 0.2	
5	Working Days	: 300	
6	Benches: size & No	: 3 m x 3 m	
7	Elevation of Mine	: 402 AMSL to 403 AMSL	
8	Ground Level Elevation	: 402 AMSL	
9	Ultimate Working	: 387 AMSL	

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	Depth		
10	Water Table	:	380AMSL (15 mbgl)
11	Topography of Mine	:	Area represents a flat terrain
12	Explosive Requirement	:	70 kg/day
13	Diesel/Fuel requirement	:	70 L/day

#### Production Details

Year	Production of stone (cum)	Production of stone (tons)	Waste Generation (CuM)	Bench RL in Meters
1 <sup>st</sup>	17800.00	48060.00	750.00	403 mRL – 399 mRL
2 <sup>nd</sup>	19000.00	51300.00	745.00	403 mRL – 399 mRL
3 <sup>rd</sup>	19200.00	51840.00	-	399 mRL – 396mRL
4 <sup>th</sup>	19350.00	52245.00	-	399 mRL – 396 mRL
5 <sup>th</sup>	19348.15	52240.00	-	396 mRL – 393 mRL
<b>Total</b>	<b>94698.15</b>	<b>255685.00</b>	<b>1495.00</b>	

#### Land Use

Pattern of Utilization	Existing (Ha)	Plan period (Ha)	Conceptual stage (Ha)
Quarry	--	0.242	0.242 (Entire area shall be left as water reservoir for rain water harvesting).
Road	0.006	Comes under quarry	
Plantation	--	0.278	0.278
<b>Total</b>	<b>0.006</b>	<b>0.52</b>	<b>0.52</b>
Unused Area	0.514	0	0.000
<b>Total applied area</b>	<b>0.52</b>	<b>0.52</b>	<b>0.52</b>

#### ENVIRONMENT MANAGEMENT

##### Green Belt Development

S. No.	LOCATION		Area/Length	No of Trees
1	Safety Zone	:	0.278 ha	695

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2	Haul /Approach Road	:	0.250 km	250
3	Distributed in Anganwadi, Panchayat Bhawan or in schools		-	100

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

#### Solid Waste Management

- Total 1495.0 cum or 4036.5 tons waste will be generated during the plan period which shall be used in making and maintenance of haul road and village road, so there is no requirement of waste dumping Plan for this mining plan period.

#### Water Quality Management

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

#### Air Quality Management

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

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- 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

### Risk and Hazards

Following are the associated Risk and Hazards associated with the stone mining process

- Accident due to explosives;
- Accident due to operation of heavy mining equipment
- Fall of animal in to abundant pit

### MITIGATION MEASURES

In order to take care of above hazard/disasters, the following control measures will be adopted:

- Opencast semi mechanized method of mining will be adopted
- Working will be carried out in one shift of 8 hours during day time only.
- No explosive will be stored at mine site.
- All applicable rules of MMR 1961, Mines Act-1952, Mines Rules 1955, MCR-1960, MCDR-1988 will be followed for safe, scientific & systematic working.
- The working will be done under the supervision of a Qualified Mines Manager.
- The height of the benches will more than the width of a bench.
- Working of mine, as per approved plans and regularly updating the mine plans.
- Permanent fencing will be provided at the top edge of opencast working.

All protective equipment of a type approved by the DGMS. will be provided to the workers viz, foot wear, helmets, ear plug, dust mask, gloves, goggles, shin guards etc.

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.

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- 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.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as protecting clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

The SEAC considered the same and recommends for issuance of amendment EC with corrected details as stated above. Rest other terms & conditions mentioned in the previous EC letter no. EC/SEIAA/2022-23/2787/2023/17, dated 12.04.2023 shall remain the same.

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8. Bisodih Stone Deposit of Shri Uday Mehta, Village : Bisodih, Thana : Nawalshahi, Distt. : Koderma, Jharkhand (2.581 Ha).

(Proposal No. : SIA/JH/MIN/ 440301/2023).

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 77792.40 cum/year or 210039.48 TPA.

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

This is a new project which has been taken for appraisal on 18.08.2023.


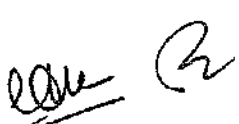


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**Project and Location Details :**

Sl	Parameter	Details	
1	Project Name	: Bisodih Stone Deposit (Area –2.581 Ha or 6.38 Acre)	
2	Lessee:	: Shri Uday Mehta	
3	Lease Address	: Village – Bisodih, Thana- Nawalsahi, District – Koderma, State - Jharkhand	
4	Lease Area	: 2.581 ha	Acres- 6.38 Acres
5	Type of Land	: Non Forest – Raiyati Land	
6	Project Cost	: Rs. 60 Lakhs	
7	EMP Budget	: Capital: 7.25 Lakhs	Recurring: 4.27 Lakh / year
8	New or Expansion	: New	
9	Mineable Reserves	: cum.: 387836.95 cum	Tonnes: 1047159.79 tons
10	Mine Life	: 4.98 ~ 5 years	
11	Man power	: 17	
12	Water Requirement	: 13.87 ~ 13.90 (Drinking: 0.17 KLD, Dust Suppression: 7.95 KLD, Plantation: 5.75 KLD)	
13	Water Source	: From Nearby villages by tankers	
14	DG Set / power	: 500 KVA	
15	Crusher	: No crusher	
16	Nearest Water Body	: Hurrahi Nadi, Approx. 2.80 km towards South direction.	
17	Nearest Habitation	: Karmandih, approx 0.96 km towards South direction.	
18	Nearest Rail Station	: Maheshpur Railway station, approx. 2.87 km towards WNW direction.	
19	Nearest Air Port	: Birsa Munda Airport, approx. 132.50 km towards SSW direction.	
20	Nearest Forest	: Partango Reserve Forest, approx. 3.50 km towards West direction.	
		Masmohana Protected Forest, approx 3.80 km towards SSW direction.	
		Kharauna Protected Forest, approx 3.30 km towards South direction.	
21	Road & Highways	: SH-13, approx 1.50 km towards North direction.	

**CO-ORDINATES**

1	Latitude	From 24°27'04.15" N	To 24°27'07.15" N
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2	Longitude	From 85°43'27.70" E	To 85°43'44.39" E
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**LAND DETAILS :**

Khata No.	Plot No.
01	3 (P), 4 (P) & 5

**STATUTORY CLEARANCES :**

1	LOI/Lease docs	: The Letter of Intent (Lol) has been issued by DMO, Koderma vide memo no. 1428/M, dated 25.07.2023.
2	CO	: The CO, Domchanch vide letter no. : 747, dated 06.07.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.  As per the CO certificate there is pond within 500 m. The PAs have submitted an EMP for the people residing in this pond.
3	DMO	: DMO, Koderma vide memo no. 1500/M, dated 03.08.2023 certified that 02 other mining lease area (2.70 Acre & 1.90 Acre) exists within 500 m radius from proposed project site and total area is 10.98 Acre.
4	DFO Wild Life	: DFO, Wildlife Hazaribagh vide letter no. : 1154, dated 14.06.2023 certified that the proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.
5	DFO Forest Distance	: DFO, Koderma Forest Division vide letter no. : 1871, dated 04.05.2023 certified that the distance of reserved / protected forest is 305 m from proposed project site.
6	DSR	: The DC – cum – District Magistrate, Koderma vide letter no. 1455/M, dated 28.07.2023 has informed that this project is part of District Survey Report (DSR) of Koderma district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	: Gram Sabha conducted on 10.07.2023.
8	Mine Plan Approval	: DMO, Koderma vide letter no. 1502/M, dated 04.08.2023.

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## Working Details

1	Mining Method	:	Opencast other than fully mechanized method	
2	Quarry Area	:	2.581 Ha or 6.38 Acre	Life of Mine – 4.98 ~ 5.0 years
3	Waste Generation	:	31034.30 cum 83792.61 Tones	
4	Stripping Ratio	:	1: 0.026	
5	Working Days	:	300	
6	Bench: size & No	:	6m to 6m	
7	Elevation of Mine	:	366 AMSL to 358 AMSL	
8	Ground Level Elevation	:	358 AMSL	
9	Ultimate Working Depth	:	344 AMSL	
10	Water Table	:	341 AMSL (17mbgl)	
11	Topography of Mine	:	Area represents undulating topography	
12	Explosive Requirement	:	110 kg/day	
13	Diesel/Fuel requirement	:	110 litre/day	

## Production Details

Year	Production of stone (Cum)	Production of stone (Tonnes)	Total Waste in (cum)	Bench RL in Meters
1 <sup>st</sup>	77781.424	210009.84	6795.376	362 mRL – 344 mRL
2 <sup>nd</sup>	77792.40	210039.48	5731.60	362 mRL – 344 mRL
3 <sup>rd</sup>	77764.96	209965.39	5507.04	356 mRL – 344 mRL
4 <sup>th</sup>	77748.496	209920.94	6785.74	356 mRL – 344 mRL
5 <sup>th</sup>	76760.656	207253.77	6214.544	356 mRL – 344 mRL
<b>Total</b>	<b>387847.936</b>	<b>1047189.42</b>	<b>31034.30</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	--	1.711	1.711  (0.164 ha area shall be backfilled & 0.79 ha area shall

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			be left as water reservoir & 0.757 ha shall be left as dead benches)
Road	--	--	--
Waste Dump	--	--	--
Safety Zone	--	0.87 (Plantation)	0.87 (Plantation)
Total	--	2.581	2.581
Balance	2.581	---	-
Lease Hold Area	2.581	2.581	2.581

## ENVIRONMENT MANAGEMENT






### Green Belt Development

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.87 ha	2175
2	Along Approach Road	0.60 km	600
3	In consulting local authorities	-	100

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

### Solid Waste Management

Total 31034.30 cum 83792.61 tones waste shall be generated during the plan period, Part of the waste shall be utilized for maintenance the village road and making of approach road, haul road and part of the waste shall be temporarily dump on the eastern side of proposed quarry during first three years. In 4th and 5th year, waste to be generated shall be shall be utilized for

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maintenance the village road and shall be backfilled towards western part of the exhausted quarry.

#### Water Quality Management

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

#### Risk and Hazards

Following are the associated Risk and Hazards associated with the stone mining process

- Accident due to explosives;
- Accident due to operation of heavy mining equipment
- Fall of animal in to abundant pit

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## MITIGATION MEASURES

In order to take care of above hazard/disasters, the following control measures will be adopted:

- Opencast semi mechanized method of mining will be adopted
- Working will be carried out in one shift of 8 hours during day time only.
- No explosive will be stored at mine site.
- All applicable rules of MMR 1961, Mines Act-1952, Mines Rules 1955, MCR-1960, MCDR-1988 will be followed for safe, scientific & systematic working.
- The working will be done under the supervision of a Qualified Mines Manager.
- The height of the benches will more than the width of a bench.
- Working of mine, as per approved plans and regularly updating the mine plans.
- Permanent fencing will be provided at the top edge of opencast working.
- All protective equipment of a type approved by the DGMS. will be provided to the workers viz, foot wear, helmets, ear plug, dust mask, gloves, goggles, shin guards etc.

### 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.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.

The bottom of the page features several handwritten signatures and initials in black ink. From left to right, there is a simple 'A', a signature that appears to be 'V. A.', a signature that looks like 'edmu', a signature that resembles 'B.', a signature that looks like 'h.', and a final signature that is more stylized and difficult to decipher.

- I. Personal protective equipments such as protecting clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

Based on the presentation made and information provided, the Committee in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF & CC O.M dated 12.12.18 decided that the proposal for Bisodih Stone Deposit of Shri Uday Mehta, Village : Bisodih, Thana : Nawalshahi, Distt. : Koderma, Jharkhand (2.581 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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9. Dahuatola Stone Deposit of M/s Om Sai Stone (Partners : (i) Shri Dilip Yadav (ii) Shri Bahadur Chaudhary), Village : Dahuatola, Circle : Jainagar, Distt. : Koderma, Jharkhand (1.125 Ha).  
(Proposal No. : SIA/JH/MIN/ 438646/2023).

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 19444.80 cum/annum or 52500.96 TPA.

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

This is a new project which has been taken for appraisal on 18.08.2023.

Project and Location Details :

Sl	Parameter	Details	
1	Project Name	: Dahuatola Stone Deposit (Area – 1.125 ha. or 2.78 Acre)	
2	Lessee:	: M/S OM SAI STONE Partners- Sri Dilip Yadav & Sri Bahadur Chaudhary	
3	Lease Address	: Village – Dahuatola, Circle- Jainagar, District – Koderma, Jharkhand	
4	Lease Area	: 1.125 ha.	Acres- 2.78 Acres
5	Type of Land	: Non Forest – Raiyati Land	
6	Project Cost	: Rs. 40 Lakhs	
7	EMP Budget	: Capital: 2.535 Lakhs	Recurring: 4.27 Lakh / year
8	New or Expansion	: New	
9	Mineable Reserves	: cum.: 188448.0 cum	Tonnes: 508809.60 tons
10	Mine Life	: 9.69 or 10 years	
11	Man power	: 17	
12	Water	: 5.01 ~ 5.0 (Drinking: 0.17 KLD, Dust Suppression: 2.38 KLD,	

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	Requirement		Plantation: 2.46 KLD)
13	Water Source	:	From Nearby villages by tankers
14	DG Set / power	:	200 KVA
15	Crusher	:	No crusher
16	Nearest Water Body	:	Akto Nadi, approx. 4.50 km towards East direction. Barakar River, approx. 1.80 km towards SW direction.
17	Nearest Habitation	:	Dahuatola , approx 0.86 km towards NW direction.
18	Nearest Rail Station	:	Hirodih Railway station, approx. 2.5 km towards NNE direction.
19	Nearest Air Port	:	Birsa Munda Airport, Ranchi, approx. 124.10 km towards SSW direction.
20	Nearest Forest	:	Beharabad Protected Forest, approx. 4.10 km towards SSE direction.
21	Road & Highways	:	NH-20, approx. 9.90 km. in NW direction.

#### CO-ORDINATES

1	Latitude		From 24°21'30.17" N	To 24°21'35.26" N
2	Longitude		From 85°35'31.21" E	To 85°35'39.73" E

#### LAND DETAILS :

Khata No.	Plot No.
25	2280 (P)
71	2278 (P)

#### STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (Loi) has been issued by DMO, Koderma vide memo no. 1305/M, dated 07.07.2023.
2	CO	:	The CO, Jainagar (Koderma) vide letter no. : 325, dated 04.05.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar & Register II.  During appraisal KML file was seen which shows that a water body exists at a distance of 400 m from the proposed mine lease area. Therefore, PAs have submitted an EMP for protection of the water

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		body as required during appraisal.
3	DMO	: DMO, Koderma vide memo no. 1336/M, dated 12.07.2023 certified that 02 other mining lease area (1.92 Acre & 6.30 Acre) exists within 500 m radius from proposed project site and total area is 11.00 Acre.
4	DFO Wild Life	: DFO, Wildlife Hazaribagh vide letter no. : 1411, dated 10.07.2023 certified that the proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.
5	DFO Forest Distance	: DFO, Koderma Forest Division vide letter no. : 2678, dated 21.06.2023 certified that the distance of reserved / protected forest is 395 m from proposed project site.
6	DSR	: The DC – cum – District Magistrate, Koderma vide letter no. 1323/M, dated 11.07.2023 has informed that this project is part of District Survey Report (DSR) of Koderma district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	: Mukhiya, Kariyawan Panchayat vide letter no. 151/23, dated 10.05.2023 informed that Gram Sabha conducted on 10.05.2023.
8	Mine Plan Approval	: DMO, Koderma vide letter no. 1359, dated 17.07.2023.

**Working Details :**

1	Mining Method	: Opencast other than fully mechanized (OTFM)
2	Quarry Area	: 1.125 ha. or 2.78 Acre   Life of Mine – 9.69 or 10 years
3	Waste Generation	: 3566.40 cum or 9629.28 tons
4	Stripping Ratio	: 1: 0.1
5	Working Days	: 300
6	Benches: size & No	: 6m to 6m
7	Elevation of Mine	: 348 AMSL to 352 AMSL
8	Ground Level Elevation	: 348 AMSL
9	Ultimate Working Depth	: 333 AMSL
10	Water Table	: 315 AMSL (10 mbgl)
11	Topography of Mine	: Area represents undulating topography

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12	Explosive Requirement	:	90 kg/day
13	Diesel/Fuel requirement	:	90 litre/day

#### Production Details

Year	Production of stone (Cum)	Production of stone (Tonnes)	Total Waste in (cum)	Bench RL in Meters
1 <sup>st</sup>	19444.80	52500.96	960.00	345 mRL – 333 mRL
2 <sup>nd</sup>	19444.80	52500.96	720.00	345 mRL – 333 mRL
3 <sup>rd</sup>	19444.80	52500.96	650.40	345 mRL – 333 mRL
4 <sup>th</sup>	19444.80	52500.96	628.80	345 mRL – 333 mRL
5 <sup>th</sup>	19444.80	52500.96	607.20	345 mRL – 333 mRL
<b>Total</b>	<b>97224.00</b>	<b>262504.8</b>	<b>3566.40</b>	

#### Land Use

Pattern of Utilization	Existing (Ha)	Plan period(Ha)	Conceptual stage (Ha)
Excavation	--	0.488	0.685 (0.030 ha. area shall be Backfilled, 0.364 ha. converted in to water reservoir & 0.291 ha shall be left as dead benches
Road	--	0.014	--
Waste Dump	--	0.130	--
Safety Zone	--	0.44 (Plantation)	0.44 (Plantation)
<b>Total</b>	<b>--</b>	<b>1.072</b>	<b>1.125</b>
Unused	1.125	0.053	--
<b>Total leasehold area</b>	<b>1.125</b>	<b>1.125</b>	<b>1.125</b>

#### ENVIRONMENT MANAGEMENT

##### Green Belt Development

S. No.	Location	Area/Length	No. of Trees
1	Safety Zone	0.44 ha	1100

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2	Along Approach Road	0.03 km	30
3	In consulting local authorities	-	100

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

#### Solid Waste Management


Total 3566.40 cum or 9629.28 tons waste will be generated during the plan period. Part of the waste shall be utilized for maintenance of the village road and making of approach road, haul road etc. 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.

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- Water sprinkling will be done on haul road to control emission of dust while transporting minerals and waste. Provision for water spray by tankers on 'kaccha road shall be done.
- Water sprinkling at loading area shall be done
- Use of personal protective equipment like dust mask e.t.c shall be put in practice
- Ambient air pollution monitoring shall be carried out every six months

#### Risk and Hazards

Following are the associated Risk and Hazards associated with the stone mining process

- Accident due to explosives;
- Accident due to operation of heavy mining equipment
- Fall of animal in to abundant pit

#### MITIGATION MEASURES

In order to take care of above hazard/disasters, the following control measures will be adopted:

- Opencast semi mechanized method of mining will be adopted
- Working will be carried out in one shift of 8 hours during day time only.
- No explosive will be stored at mine site.
- All applicable rules of MMR 1961, Mines Act-1952, Mines Rules 1955, MCR-1960, MCDR-1988 will be followed for safe, scientific & systematic working.
- The working will be done under the supervision of a Qualified Mines Manager.
- The height of the benches will more than the width of a bench.
- Working of mine, as per approved plans and regularly updating the mine plans.
- Permanent fencing will be provided at the top edge of opencast working.
- All protective equipment of a type approved by the DGMS. will be provided to the workers viz, foot wear, helmets, ear plug, dust mask, gloves, goggles, shin guards etc.

#### 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.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as protecting clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

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 M/s Om Sai Stone (Partners : (i) Shri Dilip Yadav (ii) Shri Bahadur Chaudhary), Village : Dahuatola, Circle : Jainagar, Distt. : Koderma, 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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10. Pakariya Stone Mine of M/s Shiv Shakti Enterprises (Prop. : Shri Abhishek Prasad), Village : Pakariya, Thana : Mirzachaouki, Distt. : Sahibganj, Jharkhand (4.735 Ha).

(Proposal No. : SIA/JH/MIN/ 440060/2023).

Project Category: B1 – Application for Terms of Refarance (For Expansion)

EC Application for: Proposed Capacity- From 35048.14 cum/year or 94630 TPA to  
169884.0 cum/year or 458686.80 TPA

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

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This is an expansion project which has been taken for appraisal on 18.08.2023.

**Project and Location Details :**

Sl	Parameter	Details	
1	Project Name	: Pakariya Stone Mine (Area – 4.735 Ha or 11.70 Acres)	
2	Lessee:	: M/s Shiv Shakti Enterprises Proprietor- Sri Abhishek Prasad	
3	Lease Address	: Village –Pakariya, Thana- Mirzachaouki, Anchal- Mandro, District – Sahibganj, Jharkhand	
4	Lease Area	: 4.735 ha.	Acres- 11.70 Acres
5	Type of Land	: Non Forest – Raiyati Land	
6	Project Cost	: Rs. 50 Lakhs	
7	EMP Budget	: Capital: Rs. 6.95 Lakhs	Recurring: 4.27 Lakh / year
8	New or Expansion	: Expansion	
9	Mineable Reserves	: cum.: 1345606.29 cum	Tonnes: 3633137.0 tons
10	Mine Life	: 8 years	
11	Man power	: 31	
12	Water Requirement	: 13.305 ~ 13.40 (Drinking: 0.31 KLD, Dust Suppression: 7.795 KLD, Plantation: 5.20 KLD)	
13	Water Source	: From Nearby villages by tankers	
14	DG Set / power	: 500 KVA	
15	Crusher	: With crusher	
16	Nearest Water Body	: Ganga River, approx. 8.50 km towards NE direction.	
17	Nearest Habitation	: Sundere , approx 0.40 km towards NE direction.	
18	Nearest Rail Station	: Mirzachaouki Railway Station, approx. 3.33 km towards NW direction.	
19	Nearest Air Port	: Deoghar Airport, approx. 122.0 km towards SW direction.	
20	Nearest Forest	: Protected Forest, approx. 4.80 km towards NE direction. Protected Forest, approx. 2.15 km towards West direction. Fairly Dense Mixed Jungle, approx. 4.15 km towards SE direction.	
21	Road & Highways	: NH-33, approx. 2.65 km. in North direction.	

**CO-ORDINATES**

1	Latitude	From 25°14'30.6495" N	To 25°14'38.3411" N
2	Longitude	From 87°31'38.4146" E	To 87°31'49.7995" E

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**LAND DETAILS :**

Khata No.	Plot No.
13	254
01	255
25	256
32	258 & 261
16	259 & 260
45	262 (P)




**STATUTORY CLEARANCES :**

1	LOI/Lease docs	:	<p>i. The Letter of Intent (LoI) has been issued by DMO, Koderma vide memo no. 1305/M, dated 07.07.2023.</p> <p>ii. Lease deed : 08.04.2021 for 10 years.</p>
2	CO	:	The CO, Mandro vide memo no. : 757/Ra, dated 05.08.2019 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyar & Register II.
3	DMO	:	DMO, Sahibganj vide memo no. 710/M, dated 10.07.2023 certified that 02 other mining lease area (7.00 Acre & 6.80 acre) exists within 500 m radius from proposed project site.
4.	DMO (Grid certificate)	:	DMO, Sahibganj vide memo no. 774/M, dated 02.08.2023 confirmed that proposed project is outside of Grid 1, 3, 4 and 7 as decided by Hon'ble NGT in the matter of Sayed Arshad Nasar vs State of Jharkhand & Ors.
5	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. : 1584, dated 09.08.2019 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Lake Bird Sanctuary.
6	DFO Forest Distance	:	DFO, Sahibganj Forest Division vide memo no. : 1389, dated 07.10.2016 certified that the distance of forest is 320 m from proposed project site.
7	DSR	:	This project falls under potential area of District Survey Report (DSR) of Sahibganj.

8	Gram Sabha	:	Gram Sabha conducted on 28.08.2016.
9	Mine Plan Approval	:	DMO, Sahibganj vide letter no. 623, dated 13.06.2023.
10	Production Report	:	Production figure issued by DMO, Sahibganj vide memo no. 581/M, dated 02.06.2023.
11	Previous Environmental Clearance (EC)	:	Previous EC granted by SEIAA vide letter no. EC/SEIAA/2018-19/2232/2019/685, dated 03.11.2019.
12	Compliance report of previous EC	:	Self certified compliance report.
13	Consent to Establish (CTE)	:	CTE issued by JSPCB vide Ref. no. : JSPCB/HO/RNC/CTE-10819726/2021/321, dated 28.11.2021.
14	Consent to Operate (CTO)	:	CTO issued by JSPCB vide Ref. no. : JSPCB/RO/DMK/CTO-12014637/2022/13, dated 12.01.2022.

#### Working Details

1	Mining Method	:	Opencast semi mechanized method
2	Quarry Area	:	4.735 Ha or 11.70 Acres
			Life of Mine – 8 years
3	Waste Generation	:	57252.0 cum or 154580.4 tons
4	Stripping Ratio	:	1: 0.1
5	Working Days	:	300
6	Bench: size & No	:	6m to 6m
7	Elevation of Mine	:	238 AMSL to 265 AMSL
8	Ground Level Elevation	:	265 AMSL
9	Ultimate Working Depth	:	215 AMSL
10	Water Table	:	190 AMSL
11	Topography of Mine	:	Area represents a small hillock
12	Explosive Requirement	:	110 kg/day
13	Diesel/Fuel requirement	:	110 litre/day

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## Production Details

Year	Production of stone (Cum)	Production of stone (Tonnes)	Total Waste in (cum)	Bench RL in Meters
1 <sup>st</sup>	--	--	--	--
2 <sup>nd</sup>	--	--	--	--
3 <sup>rd</sup>	168480.00	454896.00	42744.00	257 mRL – 239 mRL
4 <sup>th</sup>	169884.00	458686.80	14508.00	239 mRL – 233 mRL
5 <sup>th</sup>	167544.00	452368.80	0.00	233 mRL – 227 mRL
<b>Total</b>	<b>505908.00</b>	<b>1365951.60</b>	<b>57252.00</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	Nil	2.137	4.016 (0.689ha area shall be backfilled & 3.327 ha area shall be left as water reservoir)
ROAD	Nil	0.023	0.00
WAST DUMP	Nil	0.974	Nil (waste dump to be removed and backfilled)
Crusher		0.302	
S. Z. PLANTATION	Nil	0.719	0.719
<b>Total</b>	<b>Nil</b>	<b>4.155</b>	<b>4.735</b>
UNUSED AREA	4.735	0.580	0.000
<b>LEASE HOLD AREA</b>	<b>4.735</b>	<b>4.735</b>	<b>4.735</b>

## ENVIRONMENT MANAGEMENT

### Green Belt Development

S. No.	Location	Area/Length	No. of Trees
1	Safety Zone	0.719 ha	1800

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2	Along Approach Road	0.700 km	700
3	In consulting local authorities	-	100

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

### Solid Waste Management

In Pakariya Stone Mine, the lease area is devoid of any top soil generation. It has been calculated that total 57252.0 cum (in-situ), 71565.0 cum (loose) and 60830.25 cum (compact) waste shall be generated during this plan period. The waste generated during the plan period shall be temporarily dumped in the south eastern part the lease area with maximum height of 6.24 m and it will cover 0.974 ha area.

### Water Quality Management

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

### Risk and Hazards

Following are the associated Risk and Hazards associated with the stone mining process

- Accident due to explosives;
- Accident due to operation of heavy mining equipment
- Fall of animal in to abundant pit

### MITIGATION MEASURES

In order to take care of above hazard/disasters, the following control measures will be adopted:

- Opencast semi mechanized method of mining will be adopted
- Working will be carried out in one shift of 8 hours during day time only.
- No explosive will be stored at mine site.
- All applicable rules of MMR 1961, Mines Act-1952, Mines Rules 1955, MCR-1960, MCDR-1988 will be followed for safe, scientific & systematic working.
- The working will be done under the supervision of a Qualified Mines Manager.
- The height of the benches will more than the width of a bench.
- Working of mine, as per approved plans and regularly updating the mine plans.
- Permanent fencing will be provided at the top edge of opencast working.
- All protective equipment of a type approved by the DGMS. will be provided to the workers viz, foot wear, helmets, ear plug, dust mask, gloves, goggles, shin guards etc.

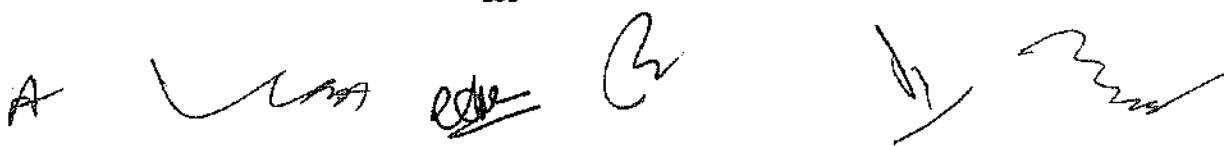
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**Undertaking submitted affirming :**

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as protecting clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

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 16, 17, 18, 19 & 20.08.2023, the Committee recommends in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF & CC O.M dated 12.12.18 for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure II.

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11. Dhubadih Stone Deposit of M/s Maa Tara Stone Works (Partners : (i) Shri Nakul Mandal (ii) Shri Suraj Kumar (iii) Shri Rajniti Singh (iv) Shri Akhilesh Mandal), Village : Dhubadih, Thana : Markacho, Distt. : Koderma, Jharkhand (1.703 Ha).

(Proposal No. : SIA/JH/MIN/ 440251/2023).

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 32718.00 cu.m/annum or 88338.60 TPA.

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

This is a new project which has been taken for appraisal on 18.08.2023.

**Project and Location Details :**

Sl	Parameter	Details	
1	Project Name	: Dhubadih Stone Deposit (Area – 1.703 Ha or 4.21 Acre)	
2	Lessee:	: M/s Maa Tara Stone Works Partners- 1. Sri Nakul Mandal 2. Sri Suraj Kumar 3. Sri Rajniti Singh 4. Sri Akhilesh Mandal.	
3	Lease Address	: Village - Dhubadih, P.S. – Markacho, District – Koderma, State - Jharkhand	
4	Lease Area	: 1.703 ha	Acres- 4.21 Acres
5	Type of Land	: Non Forest – Raiyati Land	
6	Project Cost	: Rs. 30 Lakhs	
7	EMP Budget	: Capital: 4.74 Lakhs	Recurring: 4.27 Lakh / year
8	New or Expansion	: New	
9	Mineable Reserves	: cum.: 329232.00 cum	Tonnes: 888926.40 tons
10	Mine Life	: 10 years	
11	Man power	: 20	
12	Water Requirement	: 9.03 ~ 9.0 (Drinking: 0.20 KLD, Dust Suppression: 5.215 KLD, Plantation: 3.616 KLD)	
13	Water Source	: From Nearby villages by tankers	
14	DG Set / power	: 200 KVA	
15	Crusher	: No crusher	
16	Nearest Water Body	: Markacho River, approx. 3.37 km towards East direction.	
17	Nearest Habitation	: Dhubadih , approx 0.50 km towards SSE direction.	
18	Nearest Rail Station	: Nawadih Railway station, approx. 6.8 km towards North direction.	

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19	Nearest Air Port	:	Deoghar Airport, approx. 90.60 km towards ENE direction.
20	Nearest Forest	:	Protected Forest, approx. 0.54 km towards NW direction. Protected Forest, approx 1.45 km towards NE direction. Medwa Protected Forest, approx 3.30 km towards NNW direction.
21	Road & Highways	:	Markacho-Baryardih Rd, approx. 1.27 km. in ENE direction SH-13, approx. 9.90 km. in NW direction.

**CO-ORDINATES**

1	Latitude		From 24°20'48.5221" N	To 24°20'53.3807" N
2	Longitude		From 85°48'41.7503" E	To 85°48'48.4113" E

**LAND DETAILS :**

Khata No.	Plot No.
07	400 & 402
36	388, 403 (P) & 409 (P)
58	387 & 408
76	381, 404, 405, 406 & 412
92	386 & 411

**STATUTORY CLEARANCES :**

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Koderma vide memo no. 1467/M, dated 01.07.2023.
2	CO	:	The CO, Markacho (Koderma) vide letter no. : 135, dated 16.03.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DMO	:	DMO, Koderma vide memo no. 1539/M, dated 10.08.2023 certified that 02 other mining lease area (2.92 Acre & 5.00 Acre) exists within 500 m radius from proposed project site and total area is 12.13 Acre.
4	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. : 831, dated 26.04.2023 certified that the proposed project site is outside Eco Sensitive Zone of Koderma Wildlife Sanctuary.

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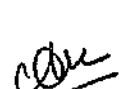

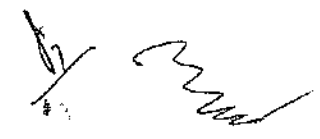
5	DFO Forest Distance	:	DFO, Koderma Forest Division vide letter no. : 2089, dated 22.05.2023 certified that the distance of reserved / protected forest is 305 m from proposed project site.
6	DSR	:	The DC – cum – District Magistrate, Koderma vide letter no. 1455/M, dated 28.07.2023 has informed that this project is part of District Survey Report (DSR) of Koderma district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	:	Gram Sabha conducted on 28.04.2023.
8	Mine Plan Approval	:	DMO, Koderma vide letter no. 1535/M, dated 10.08.2023.

### Working Details

1	Mining Method	:	Opencast semi mechanised method
2	Quarry Area	:	1.703 Ha or 4.21 Acre
			Life of Mine – 10 Years
3	Waste Generation	:	19596.00 cum or 52909.2 tons
4	Stripping Ratio	:	1: 0.15
5	Working Days	:	300
6	Bench: size & No	:	6m to 6m
7	Elevation of Mine	:	351 AMSL to 344 AMSL
8	Ground Level Elevation	:	335 AMSL
9	Ultimate Working Depth	:	325 AMSL
10	Water Table	:	315 AMSL (20mbgl)
11	Topography of Mine	:	Area represents a small hillocks topography
12	Explosive Requirement	:	90 kg/day
13	Diesel/Fuel requirement	:	90 litre/day

### Production Details :

Year	Production of stone (Cum)	Production of stone (Tonnes)	Total Waste in (cum)	Bench RL in Meters
1 <sup>st</sup>	31350.00	84645.00	12810.00	343 mRL – 343 mRL
2 <sup>nd</sup>	32034.00	86491.80	1686.00	337 mRL – 337 mRL
3 <sup>rd</sup>	32490.00	87723.00	1710.00	337 mRL – 331 mRL

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4 <sup>th</sup>	32718.00	88338.60	1722.00	331 mRL – 325 mRL
5 <sup>th</sup>	31692.00	85568.40	1668.00	325 mRL – 325 mRL
<b>Total</b>	<b>160284.00</b>	<b>432766.80</b>	<b>19596.00</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	--	0.694	1.200  (0.175 ha area shall be backfilled, 0.649 ha area shall be left as water reservoir & 0.376 ha shall be left as dead benches)
Road	--	0.023	--
Waste Dump	--	0.200	(to be removed and backfilled)
Safety Zone	--	0.503  (Plantation)	0.503  (Plantation)
<b>Total</b>	--	1.420	1.703
<b>Balance</b>	1.703	0.283	-
<b>Lease Hold Area</b>	1.703	1.703	1.703

**ENVIRONMENT MANAGEMENT**

**Green Belt Development**

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.503 ha	1258
2	Along Approach Road	0.45 km	450
3	In consulting local authorities	-	100

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

#### **Solid Waste Management**

There is 19596.00 cum or 52,909.2 tonnes waste generated during this Mining Plan period, The 50% of waste generated during the plan period i.e. 9798.00 cum waste (in situ) shall be utilized for approach & haul road maintenance and rest 9798.00 cum waste (in situ), 12247.50 cum loose & 10410.38cum compact waste shall be temporarily dumped in eastern part of the applied lease area, the maximum height of dump shall be 7.5m, garland drain & retaining wall shall be constructed all along the dump, and it will cover 0.200ha 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.

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- 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.

### Risk and Hazards

Following are the associated Risk and Hazards associated with the stone mining process

- Accident due to explosives;
- Accident due to operation of heavy mining equipment
- Fall of animal in to abundant pit

### MITIGATION MEASURES

In order to take care of above hazard/disasters, the following control measures will be adopted:

- Opencast semi mechanized method of mining will be adopted
- Working will be carried out in one shift of 8 hours during day time only.
- No explosive will be stored at mine site.
- All applicable rules of MMR 1961, Mines Act-1952, Mines Rules 1955, MCR-1960, MCDR-1988 will be followed for safe, scientific & systematic working.
- The working will be done under the supervision of a Qualified Mines Manager.
- The height of the benches will more than the width of a bench.
- Working of mine, as per approved plans and regularly updating the mine plans.
- Permanent fencing will be provided at the top edge of opencast working.
- All protective equipment of a type approved by the DGMS. will be provided to the workers viz, foot wear, helmets, ear plug, dust mask, gloves, goggles, shin guards etc.

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**Undertaking submitted affirming:**

- a. Ground water will be used only for domestic purpose and not be used for any mining activities or any other use.
- b. The District Survey Report has been prepared by a competent authority. Project Authorities will abide by any directives issued by any court of law in future.
- c. If any changes are noticed in future regarding the contiguous / cluster area report issued by the mines department, then the applicable laws / rules will be binding on the Project Authorities and all necessary steps will be taken in this regard
- d. The Boundary Pillars of the proposed mine lease area will be maintained properly.
- e. One day post monsoon baseline data related to environment monitoring will be submitted with the first compliance report.
- f. The plantation work will be completed within the first year of operation. Thereafter the same will be maintained up to the Conceptual stage of the Mine.
- g. Sufficient water spray using water tankers will be done for effective dust suppression within the mine lease area and on haul roads.
- h. All the mining machineries / equipment and transport vehicles should be maintained in good condition and annually tested for fitness and PUC and records to be maintained.
- i. If any tree felling than necessary permission shall be taken from the competent authority.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as protecting clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

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 Dhubadih Stone Deposit of M/s Maa Tara Stone Works (Partners : (i) Shri Nakul Mandal (ii) Shri Suraj Kumar (iii) Shri Rajniti Singh (iv) Shri Akhilesh Mandal), Village : Dhubadih, Thana : Markacho, Distt. : Koderma, Jharkhand (1.703 Ha) is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – I.

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12. Koriadih Stone Deposit of M/s Mahadev Stone Mines (Partners : (i) Shri Navneet Kumar Mehta (ii) Shri Anand Rajesh), Village : Koriadih, Thana : Dumri, Distt. : Giridih, Jharkhand (2.21 Ha).  
(Proposal No. : SIA/JH/MIN/ 440312/2023).

Project Category: B2 – Application for Environment Clearance

EC Application for: Proposed Capacity- 42292.00 cum/annum or 114188.40 TPA.

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

This is a new project which has been taken for appraisal on 18.08.2023.

**Project and Location Details :**

Sl	Parameter	Details
1	Project Name	: Koriadih Stone Deposit
2	Lessee:	: M/s Mahadev Stone Mines Partners- 1.Sri Navneet Kumar Mehta (Partner) S/o- Sri Jeevial Mehta,Village+P.O.- Domchanch, Dist.-Koderma, State-Jharkhand  2.Sri Anand Rajesh (Partner) S/o- Sri Captain Anand, Village-New Bus Stand, Ward no.-24, Jhumri Telaiya, District-Koderma, State-Jharkhand.
3	Lease Address	: Village – Koriadih Thana - Dumri , District-Giridih, State - Jharkhand
4	Lease Area	: 2.21 ha Acres- 5.47 Acres
5	Type of Land	: Non Forest – Raiyati Land
6	Project Cost	: Rs. 20 Lakhs
7	EMP Budget	: Capital: 4.73 Lakhs Recurring: 4.27 Lakh / year
8	New or Expansion	: New
9	Mineable Reserves	: cum.: 423000.00 cum Tonnes: 1142100.00 tons
10	Mine Life	: 10 years
11	Man power	: 20
12	Water Requirement	: 9.34 ~ 9.50 (Drinking: 0.20 KLD, Dust Suppression: 4.71 KLD, Plantation: 4.43 KLD)
13	Water Source	: From Nearby villages by tankers
14	DG Set / power	: 500 KVA
15	Crusher	: No crusher
16	Nearest Water Body	: Jamuniya Nadi, approx. 2.66 km towards SE direction.
17	Nearest Habitation	: Koriadih , approx 0.40 km towards SE direction.
18	Nearest Rail	: Nimighat Railway station, approx. 2.25 km towards NW

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	Station	:	direction.
19	Nearest Air Port	:	Birsa Munda Airport, approx. 103.0 km towards SW direction.
20	Nearest Forest	:	Dense Mixed Forest, approx. 2.06 km towards NE direction.
21	Road & Highways	:	SH-19, approx. 1.79 km towards NE direction.

#### CO-ORDINATES

1	Latitude	From 23°55'07.54" N	To 23°55'15.51" N
2	Longitude	From 86°05'43.67" E	To 86°05'51.81" E

#### LAND DETAILS :

Khata No.	Plot No.
15	91, 102, 103, 104, 105, 106 & 107
18	53 (P)
26	112, 131, 140, 141, 142, 143, 144, 145 & 150
28	37 (P), 108, 111, 115, 116, 122, 147, 151 & 152
31	51 (P) & 118
39	97, 109, 113 & 117
50	60 (P), 99, 100, 101, 110 & 114

#### STATUTORY CLEARANCES :

1	LOI/Lease docs	:	The Letter of Intent (LoI) has been issued by DMO, Giridih vide letter no. 613/M, dated 30.05.2023.
2	CO	:	The CO, Dumri (Giridih) vide letter no. : 195, dated 20.03.2023 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in Khatiyari.  The CO, Dumri (Giridih) has stated in his certificate that there is no Educational Institute within 400 m from the ML Area.  As there is no clarity regarding existence of Educational Institute

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		between 400 m to 500 m from the ML Area. The PAs have been asked to submit an EMP for the same. The PAs have submitted the EMP.
3	DMO	: DMO, Giridih vide memo no. 674/M, dated 13.06.2023 certified that 01 other LOI area (4.3483 Acre) exists within 500 m radius from proposed project site.
4	DFO Wild Life	: DFO, Wildlife Hazaribagh vide letter no. : 474, dated 04.03.2023 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
5	DFO Forest Distance	: DFO, Giridih East Forest Division vide letter no. : 736, dated 23.02.2023 certified that the distance of notified forest is 350 m from proposed project site.
6	DSR	: The DC – cum – District Magistrate, Giridih vide letter no. 756/M, dated 10.07.2023 has informed that this project is part of District Survey Report (DSR) of Giridih district and accordingly necessary action with regard to Environmental Clearance can be taken.
7	Gram Sabha	: Gram Sabha conducted on 11.03.2023.
8	Mine Plan Approval	: DMO, Giridih vide letter no. 883/M, dated 12.08.2023.

#### Working Details

1	Mining Method	: Opencast semi mechanised method
2	Quarry Area	: 2.21 ha. or 5.47 Acres
		Life of Mine – 10 Years
3	Waste Generation	: 4584.00 cum or 12,376.8 tons
4	Stripping Ratio	: 1: 0.008
5	Working Days	: 300
6	Benches: size & No	: 6m to 6m
7	Elevation of Mine	: 280 AMSL to 277 AMSL
8	Ground Level Elevation	: 277 AMSL
9	Ultimate Working Depth	: 257 AMSL
10	Water Table	: 245 AMSL (15 mbgl)
11	Topography of Mine	: Area represents an undulating topography
12	Explosive Requirement	: 110 kg/day
13	Diesel/Fuel requirement	: 110 litre/day

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**Production Details**

Year	Production of stone (Cum)	Production of stone (Tonnes)	Total Waste in (cum)	Bench RL in Meters
1 <sup>st</sup>	39000.00	105300.00	4584.00	279 mRL – 275 mRL
2 <sup>nd</sup>	41400.00	111780.00	-	275 mRL – 269 mRL
3 <sup>rd</sup>	41710.00	112617.00	-	275 mRL – 269 mRL
4 <sup>th</sup>	42292.00	114188.40	-	269 mRL – 263 mRL
5 <sup>th</sup>	42270.00	114129.00	-	269 mRL – 257 mRL
<b>Total</b>	<b>206672.00</b>	<b>558014.40</b>	<b>4584.00</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	0.177	1.063	1.412 (entire area converted into water reservoir)
Road	0.015	comes under quarry	comes under quarry
Waste Dump	--	--	--
Safety Zone	--	0.798 (Plantation)	0.798 (Plantation)
<b>Total</b>	<b>0.192</b>	<b>1.861</b>	<b>2.21</b>
Balance	2.018	0.349	-
Lease Hold Area	2.21	2.21	2.21

**ENVIRONMENT MANAGEMENT**

**Green Belt Development**

S. No.	Location	Area/Length	No of Trees
1	Safety Zone	0.798 ha	1995
2	Along Approach Road	0.12 km	120
3	In consulting local authorities	-	100

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

#### **Solid Waste Management**

Total of 4584.00 cum or 12,376.8 tons waste during the plan period will be generated which shall be used in making and maintenance of haul road and approach road, so there is no requirement of waste dumping Plan for this mining plan period.

#### **Water Quality Management**

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

#### **Air Quality Management**

- Dust extractor or wet drilling shall be followed to control dust at source of emission during drilling.
- Sharp drill bits will be used for drilling and regrinding will be done periodically to reduce the dust generation.
- Controlled blasting to reduce dust emission and reduction in NOx emission
- All machineries and transport vehicles shall be properly maintained and pollution check will be done once in a year to keep the emissions from machineries and vehicle under control. Records for same to be maintained.

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- Water sprinkling will be done on haul road to control emission of dust while transporting minerals and waste. Provision for water spray by tankers on 'kaccha road shall be done.
- Water sprinkling at loading area shall be done
- Use of personal protective equipment like dust mask e.t.c shall be put in practice
- Ambient air pollution monitoring shall be carried out every six months

### Risk and Hazards

Following are the associated Risk and Hazards associated with the stone mining process

- Accident due to explosives;
- Accident due to operation of heavy mining equipment
- Fall of animal in to abundant pit

### MITIGATION MEASURES

In order to take care of above hazard/disasters, the following control measures will be adopted:

- Opencast semi mechanized method of mining will be adopted
- Working will be carried out in one shift of 8 hours during day time only.
- No explosive will be stored at mine site.
- All applicable rules of MMR 1961, Mines Act-1952, Mines Rules 1955, MCR-1960, MCDR-1988 will be followed for safe, scientific & systematic working.
- The working will be done under the supervision of a Qualified Mines Manager.
- The height of the benches will more than the width of a bench.
- Working of mine, as per approved plans and regularly updating the mine plans.
- Permanent fencing will be provided at the top edge of opencast working.
- All protective equipment of a type approved by the DGMS. will be provided to the workers viz, foot wear, helmets, ear plug, dust mask, gloves, goggles, shin guards etc.

### 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.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as protecting clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

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 Koriadih Stone Deposit of M/s Mahadev Stone Mines (Partners : (i) Shri Navneet Kumar Mehta (ii) Shri Anand Rajesh), Village : Koriadih, Thana : Dumri, 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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13. Golpur Stone Mine of M/s Grands Mining Works, Village : Golpur, P.O. : Khakhsa, P.S. : Pakuria, Distt. : Pakur, Jharkhand (14.43 Ha),

(Proposal No. : SIA/JH/MIN/ 436773/2023)

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

EC Application for: Existing Capacity - 57190.0 cum/annum or 160132.0 MTPA

After Expansion Capacity - 413726.2 cum/annum or 1158433.3 MTPA

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

This is an Expansion project which has been taken for appraisal on 21.07.2023.

The Golpur Stone Mines has been previously granted for Environment clearance by SEIAA, Jharkhand vide letter no. EC/SEIAA/2015-16/754/2015/1521, dated 25.08.2015 with production capacity 57190.0 cum/annum or 160132.0 MTPA. Now, the proposal has been applied for the Terms of Reference (Expansion, Category B1) under production capacity of 413726.2 cum/annum or 1158433.3 MTPA within same mining lease area.

**Project and Location Details:**

Sl	Parameter	Details
1	Project Name	: Golpur Stone Mines (14.43 ha or 35.66 Acre)
2	Lessee:	: M/s Grands Mining Add - Plot No. - GE-16, City Centre, Sector -4, Bokaro Steel City, Jharkhad
3	Lease Address	: Village – Golpur, P.O.- Pakuria, P.S.- Pakuria, District – Pakur, Jharkhand
4	Lease Area	: 14.43 ha Acres- 35.66 Acres
5	Type of Land	: Non Forest – Raiyati Land
6	Project Cost	: Rs. 80 Lakhs
7	EMP Budget	: Capital: 16.40 Lakhs Recurring: 4.27 Lakh / year
8	New or Expansion	: Expansion
9	Mineable Reserves	: Cum.: 1264476.42 cum Tonnes: 3540534.0 tons
10	Mine Life	: 3.05 years
11	Man power	: 95
12	Water Requirement	: 18.55 ~ 19.0 KLD(Drinking: 0.95 KLD, Dust Suppression:2.40 KLD, Plantation: 15.20 KLD)
13	Water Source	: From Nearby villages by tankers
14	DG Set / power	: 500 kVA
15	Crusher	: No crusher
16	Nearest Water	: Brahmani River, approx 0.90 km towards South direction.

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17	Nearest Habitation	:	Golpur, approx. 0.70 km towards North direction.
18	Nearest Rail Station	:	Pinargaria Railway station, approx. 6.10 km towards South direction.
219	Nearest Air Port	:	Deoghar Airport, approx. 97.70 km towards WNW direction.
20	Nearest Forest	:	Protected Forest , approx. 6.25 km, SE direction. Protected Forest , approx. 5.80 km, SW direction. Reserve Forest, approx. 6.90 km, NE direction.
21	Road & Highways	:	NH- 114 A, Approx. 5.90 km. in SW direction.

#### CO-ORDINATES

1	Latitude		From 24°15'46.497" N	To 24°16'07.575" N
2	Longitude		From 87°38'41.704" E	To 87°39'04.483" E

#### LAND DETAILS:

Khata No.	Plot No.
56	566

#### STATUTORY CLEARANCES:

1	LOI	:	i. The Letter of Intent (Loi) has been issued by DMO, Pakur vide letter no. 1532/M, dated 19.09.2015.  ii. Lease deed 06.10.2015 to 05.10.2025.
2	CO	:	The CO, Pakuria (Pakur) vide letter no. 206/Ra, dated 06.03.2023 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. 1843/M, dated 11.08.2023 certified that 02 other mining lease area (23.00 Acre & 19.00 Acre) exists within 500 m radius from proposed project site and total area is 77.66 Acre / 31.43 Ha.

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4	DFO Wildlife	:	DFO –cum- Incharge Wildlife Sanctuary, Udhwa (Sahibganj) vide memo no. : 2855 dated 25.11.2022 certified that the proposed project site is outside Eco Sensitive Zone of Udhwa Bird Sanctuary.
5	DFO Forest Distance	:	DFO, Pakur Forest Division vide letter no. : 1365, dated 05.11.2014 certified that the distance of notified forest is more than 500 m from proposed project site.
6	DSR	:	This project is mentioned in District Survey Report (DSR) of Pakur district in Page No. 23 at Sl. No. 05.
7	Gram Sabha	:	Gram Sabha conducted on dated 26.07.2014.
8	Mine Plan Approval	:	Additional Director, Geology, Hazaribag vide Memo no. G/2022-23-223, dated 02.09.2022.
9	Previous Environmental Clearance	:	Previous EC granted by SEIAA vide letter no. EC/SEIAA/2015-16/754 /2015/1521, dated 25.08.2015.
10	Compliance report of previous EC	:	Self certified compliance report.
11	Production Report	:	Production report issued by DMO, Pakur vide memo no. 1699/M, dated 22.07.2023

#### Working Details

1	Mining Method	:	Opencast Semi Mechanized Mining method
2	Quarry Area	:	14.43 ha or 35.66 Acre
3	Waste Generation	:	175309.1 tons 62610.39 cum
4	Stripping Ratio	:	1: 0.03
5	Working Days	:	300
6	Benches: size & No	:	6m to 6m
7	Elevation of Mine	:	105 AMSL to 69 AMSL
8	Ground Level Elevation	:	69 AMSL
9	Ultimate Working Depth	:	30 meter
10	Water Table	:	(50 - 60 mbgl)
11	Topography of Mine	:	Area represents a hillock Topography
12	Explosive Requirement	:	110 kg/day
13	Diesel/Fuel requirement	:	110 litre/day

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### Production Details

Year	Production of stone (Cum)	Production of stone (Tonnes)	Waste Generation (Cum)	Bench RL in Meters
1 <sup>st</sup>	381222.7	1067423.5	138728.3	105 mRL – 75 mRL
2 <sup>nd</sup>	407783.3	1141793.2	35381.9	81 mRL – 69 mRL
3 <sup>rd</sup>	413726.2	1158433.3	1198.8	69 mRL – 39 mRL
<b>Total</b>	<b>1202732.2</b>	<b>3367650.1</b>	<b>175309.1</b>	

### Land Use

Pattern of Utilization	Existing Land Use (Ha)	At the end of Plan Period (Ha)	At Conceptual Period (Ha)
Quarry	0.40	10.16	10.70 (entire area converted into water reservoir)
Road	0.11	0.54	--
Garland Drain with Settling Tank	--	0.85	--
Safety Zone	--	2.88 (Plantation)	3.73 (Plantation)
<b>Total Area</b>	<b>0.51</b>	<b>14.43</b>	<b>14.43</b>
Balanced Unused area	13.92	--	--
<b>Total</b>	<b>14.43</b>	<b>14.43</b>	<b>14.43</b>

### ENVIRONMENT MANAGEMENT

#### Green Belt Development

S. No.	LOCATION	Area/Length	No of Trees
1	Safety Zone	2.88 ha	7200
2	Approach Road	0.40 km	400
3	In consulting local authorities	-	100

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

#### Solid Waste Management


- Total 175309.1 tons waste during the plan period will be generated. In this area top soil will be handled during 1st to 3rd year and this soil shall be instantaneously back-filled into the exhausted quarry with suitable precaution.

#### 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.

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- 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

### Risk and Hazards

Following are the associated Risk and Hazards associated with the stone mining process

- Accident due to explosives;
- Accident due to operation of heavy mining equipment
- Fall of animal in to abundant pit

### MITIGATION MEASURES

In order to take care of above hazard/disasters, the following control measures will be adopted:

- Opencast semi mechanized method of mining will be adopted
- Working will be carried out in one shift of 8 hours during day time only.
- No explosive will be stored at mine site.
- All applicable rules of MMR 1961, Mines Act-1952, Mines Rules 1955, MCR-1960, MCDR-1988 will be followed for safe, scientific & systematic working.
- The working will be done under the supervision of a Qualified Mines Manager.
- The height of the benches will more than the width of a bench.
- Working of mine, as per approved plans and regularly updating the mine plans.
- Permanent fencing will be provided at the top edge of opencast working.
- All protective equipment of a type approved by the DGMS. will be provided to the workers viz, foot wear, helmets, ear plug, dust mask, gloves, goggles, shin guards etc.

The bottom of the page contains several handwritten signatures and initials in black ink. From left to right, there is a large 'A', a signature that appears to be 'S. K. Singh', another signature that is less legible, a signature that looks like 'G', and finally a signature that appears to be 'S. K. Singh' with a checkmark-like flourish at the end.

### 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.
- j. Slope of the Water bodies to be stabilized using gabion plantation created at the end of life of the mine.
- k. Suitable safety protection measures shall be taken around the water bodies to prevent any human or animals falling in to the water bodies created at the end of life of the mine.
- l. Personal protective equipments such as protecting clothing, helmet, goggles or other garments or equipments designed to protect from injury or infection will be provided to working personnel.

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 16, 17, 18, 19 & 20.08.2023, the Committee recommends in the light of Hon'ble NGT, Principal Bench, New Delhi order dated 13.09.18 and MoEF & CC O.M dated 12.12.18 for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure II alongwith the following specific conditions :

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

The bottom of the page features several handwritten signatures and initials in black ink. From left to right, there is a signature that appears to be 'A', followed by 'USA', 'Raj', and 'B'. To the right of these, there is a signature that looks like 'Jy' and another that is more stylized and illegible.



- II. CAAQMS to be installed at project site in downwind direction for monitoring of PM 10 and PM 2.5 and data so generated will be shared with JSPCB / CPCB on real time basis.

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14. Proposed Common Bio-Medical Waste Treatment and Disposal Facility of M/s Prakriti Waste Management, Village : Ambatari, Thana : Rikhiya, Tehsil : Mohanpur, Dist. : Deoghar, Jharkhand. (Proposal No. : SIA/JH/INFRA2 /440258 /2023).

Consultant Name : Fulgro Environmental and Engineering Services, Jaipur.

This is a new project which has been taken for appraisal on 18.08.2023.

Project Category : Category B1 – (Project falls under item 7 (d) (a) (Bio-Medical Waste Treatment Facilities) of the Schedule-Gazette Notification dated 17th April 2015 of MoEF&CC, Govt. of India.)






The State Expert Appraisal Committee, Jharkhand deliberated the project during its 94<sup>th</sup> meeting held on 10 - 14.05.2022 and SEIAA, Jharkhand has approved the ToRs in 95<sup>th</sup> meeting held on 14<sup>th</sup>, 15<sup>th</sup> & 16<sup>th</sup> June, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2021-22/2563/2021/129, date 18.06.2022. The final EIA / EMP submitted by PP to SEIAA on 14.08.2023 and which was forwarded to SEAC on 14.08.2023.

The total plot area of the unit is 4087.74 sq.m. The land for the proposed project is taken on lease in name of M/s Prakriti for the purpose of establishment of a Common Biomedical Waste Treatment Facility only. The total project cost for the proposed project will be Rs. 98 lacs.

Public Hearing for the project was conducted on 03/03/2023 at 11 A.M. near Project site. Advertisements for the public hearing was published in two newspapers i.e. PrabhatKhabar, Deoghar Edition (Hindi) dated 26/01/2023 and Hindustan Time, Ranchi Edition dated 26/01/2023. Public hearing was headed by Shri Chandrabhushan Singh (Additional Collector), Deoghar.

Salient Features of the project :

S.No.	Items	Details
1.	Project name	Proposed Common Bio-Medical Waste Treatment Facility at Deoghar.
2.	Project Proponent	M/s Prakriti Waste Management

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3.	Category	B			
4.	Project address				
	Khata no. & Plot no.	Khatano. 03, Plotno. 65 (P).			
	Village	Ambatari			
	Tehsil	Mohanpur			
	District	Deoghar			
	State	Jharkhand			
	Coordinates	Pt. 1	Latitude: 24°35'46.02"N	Pt.2	Latitude: 24°35'43.31"N
			Longitude: 86°45'25.34"E		Longitude: 86°45'24.91"E
		Pt. 3	Latitude: 24°35'42.80"N	Pt.4	Latitude: 24°35'45.70"N
			Longitude: 86°45'25.99"E		Longitude: 86°45'27.28"E
		Pt. 5	Latitude: 24°35'45.79"N		
			Longitude: 86°45'25.75"E		
5.	Nearest CBWTF	At Dhanbad ~94.53 km from the proposed site			
6.	Total Plot area	4087.74sq.m.(1.01acre)			
7.	Waste to be handled	7500kg/day			
8.	No.of shifts	3			
9.	No. and types of vehicles for transportation/ Collection of waste	10 nos. Diesel vehicles			
10.	Trips to be made per day	10 trips/day			
	<b>Environmentalsensitivity</b>				
11.	Nearest Town/City	Deoghar	10.57km	S	
12.	Nearest railway station	Deoghar Junction	9.89km	SW	
13.	Nearest highway	NH133	10.67km	S	
		SH22	8.84km	W	
14.	Nearest airport	Sidho Kanhu airport	45.46km	SW	
15.	Nearest river/ water body	Seasonal River	0.36km	S	
		Mayurakashi River	11.59km	SW	
		Nala			
		canal			

16.	Protected Forests	Densely mixed Forest	4.0 km	NE
		Fairly mixed Forest	4.13	NW

**Treatment capacity of the proposed CBWTF**

S. No.	Particular	No.	Capacity
1	Incinerator	1	300 kg/hr
2	Autoclave	1	100 lt/batch Batch (60 min) i.e 100 kg/hr
3	Shredder	1	50 kg/hr
4	ETP	1	5 KLD
5	Sharp pit	1	-
6	Ash pit	1	-

**Raw Material**

The project involves treatment of bio medical waste and the raw material for the process is collected from various health care establishments as defined and specified under Bio Medical Waste Management Rules, 2016. Details and the quantity of raw material are provided below in table below:

**Raw material requirement**

S. No.	Particular
1	Biomedical waste
2	Colour coded Trollies
3	Non Chlorinated Colour coded bags
4	Diesel
5	Spares

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6	<b>Chemicals:</b> <ul style="list-style-type: none"> <li>• Sodium Hypochlorite</li> <li>• Caustic soda</li> <li>• Lime</li> <li>• Alum</li> <li>• Disinfectant</li> </ul>
7	Personal Protection Equipment (PPE)

**Water Requirement and Source:**

The one time water demand for the proposed CBWTF will be 10.1 KLD, wherein the daily fresh water requirement will be 6.5 KLD and the recycled water demand will be 3.6 KLD. Water will be required for industrial purpose i.e. for venturi scrubber and autoclave, domestic usage, floor and vehicle washing, and green belt.

The detailed water demand calculation and break up is elaborated under:

**Water demand calculation :**

S. No.	Particulars	Details	Basis	Water demand (KLD)	Waste Water Generation (KLD)	Management
1	Domestic	32 persons	@ 45 lpcd	1.5	1.35	Septic tank followed by Soak Pit
2	Industrial	Venturi scrubber & autoclave effluent		6	3	ETP
3	Others	Floor & vehicle washing		1.2	1	
4	Green Belt	1340.06 Sq.m	@1 lt/sq.m	1.34	Nil	Nil
				<b>10.1</b>	<b>5.35</b>	

**Power Requirement and Source :**

The power demand for the proposed CBWTF will be 65 kVA that will be sourced through DG set.

**Solid Waste Management**

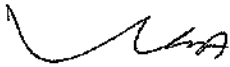




The wastes will be generated from the CBWTF including hazardous waste during operation phase & their treatment/disposal methods are given below:

**Waste generation & disposal :**

S. No	Treated Waste Category	Treatment and disposal options
1	Plastic waste after disinfection and shredding	Plastic waste will not be sent to land fill sites. Treated plastic waste is sent to registered or authorized recyclers.
2	Disinfected sharps (including needles and syringes)	Autoclaving followed by shredding & encapsulation in metal container or cement concrete and sent for final disposal to designated concrete waste sharp pit.
3	Incineration ash	Incineration ash (200 Kgs per day) will be temporarily stored in ash pit at site & then final disposal through authorized treatment, storage and disposal facility (TSDF).
4	Other treated solid wastes like glass waste	Autoclaving and then sent for recycling
5	Oil and Grease	Incineration
6	ETP Sludge	Incineration after drying in sludge drying beds or removal of moisture content using filter press.
7	Hazardous waste	Disposal through TSDF located nearby following the manifest as per hazardous and other waste (Management and Transboundary Movement) Rules.

**EMP BUDGET**

S. No.	Activity	Capital Cost (Lakhs)	Annual Recurring Cost (Lakhs)
1	Air Pollution Control Systems Quencher, Ventury, Wet Scrubber,	15	5.0
2	Monitoring of ambient Air, Water, Soil, Noise etc. (Including yearly Dioxin & Furan Monitoring by 3rd party) and Odor and Noise control measures	-	1.0

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3	Landscaping, Green belt Development (2500/ha, Total No. of tree-330)	1.20	0.30
3	Effluent Treatment Plant and Septic tank etc	2.50	1.00
4.	Occupational Health & Safety, Immunization, Health Checkups Training and PPE	1.80	1.0
5.	Provision of cost for the transportation of hazardous waste	-----	2.0
<b>TOTAL</b>		<b>20.5</b>	<b>10.30</b>

### STATUTORY CLEARANCE

1	DFO Wildlife	:	The DFO, Wildlife Hazaribagh Vide Letter No. 1509, Dated 09.09.2021 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
2	CO certificate	:	The CO, Mohanpur vide Letter No. 489, Dated 28.05.2021 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S Khatiyar.
3	DFO Territorial	:	The DFO, Deoghar Forest Division vide Letter No. 145, Dated 01.02.2021 certified that the distance of reserved / protected forest is more than 250 m from proposed project site.
4	Civil Surgeon certificate	:	The Civil Surgeon, Deoghar vide letter no. 2024, dated 24.12.2021 has certified that there is no CBWTF plant exist within 75 km.
5	Public Hearing	:	Public Hearing conducted by JSPCB on 03.03.2023.

Based on the presentation made and information provided, the Committee decided that the proposal for Proposed Common Bio-Medical Waste Treatment and Disposal Facility of M/s Prakriti Waste Management, Village : Ambatari, Thana : Rikhiya, Tehsil : Mohanpur, Dist. : Deoghar, Jharkhand is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure –VI alongwith the following specific conditions :

- I. Ground water to be drawn for use in the project only after obtaining permission from the Competent Authority.
- II. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.

- III. All raw material to be stored only under covered shed.
- IV. PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.
- V. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load. It is to be achieved by solar panels etc meeting ECBC norms.
- VI. Trees should be developed & maintained not less than 15% of project area.
- VII. 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.
- VIII. ISO 14k EMS system standard to be followed for implementation of EMPs with MRM in place for feedback to Sr management.

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Day 4 : August 19<sup>th</sup>, 2023 [Saturday]

### Consideration of Proposals





1. Expansion of existing 27000 TPA M.S. Ingot unit to 1,48,500 TPA MS Ingot / Billets by installing 3x15 T (by replacement of existing 2x4 T Furnace with 2x15 T & Addition of 1x15 T IF) along with CCM- 1x2 strand, 4/7 m radius, enhancement of slag crusher capacity from 9000 TPA to 33,000 TPA and production of 1,45,000 TPA Rolled Products (TMT Bars / Structural / etc) by installing 1x25 TPH Rolling Mill along with 1x30 TPH capacity reheating furnace (for emergency use) by M/s Kumardhubi Steels Pvt. Ltd., Village : Rajpura, P.O. : Kumardhubi, Dist. : Dhanbad, Jharkhand.

(Proposal No. : SIA/JH/IND1/ 440302 /2023).

Name of the consultant : Vardan Environet, Haryana.

This is an expansion project which has been taken for appraisal on 19.08.2023.

The proposal was considered by the committee to determine the "Terms of Reference (ToR)" for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendments thereafter. For this purpose the Project Proponent has submitted the prescribed Form - I & PFR the proposed project

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falls under item 3 (a) Metallurgical Industries (Ferrous & Non Ferrous) as per EIA Notification, 2006.

M/s Kumardhubi Steels Pvt Ltd (KSPL) has made ToR Application vide proposal no. SIA/JH/IND1/440302/2023 dated 13.08.2023 along with Form – 1, copy of Pre-Feasibility Report for undertaking detailed study as per the EIA Notification, 2006 for the above mentioned project. The proposed project activity is listed as S.No. 3(a) Metallurgical Industry, under Category 'B' of the schedule of the EIA Notification, 2006.

The project M/s KSPL is located at Village: Rajpura, P.O.: Kumardhubi, District: Dhanbad, Jharkhand is for expansion of existing 27000 TPA M.S. Ingot unit to 148,500TPA MS Ingot/Billets by installing 3x15T (by replacement of existing 2x4T Furnace with 2x15T & Addition of 1x15T Furnace) along with CCM-1x2 strand, 4/7m radius, enhancement of slag crusher capacity from 9,000TPA to 33,000TPA and Production of 145,500TPA Rolled Products (TMT Bars/Structural/etc.) by installing 1x25TPH Rolling Mill along with 1x30TPH capacity reheating furnace (for emergency use).

Saleable products will be M.S. Ingot/Billets – 148,500 TPA or Rolled Products (TMT Bars/Structural/etc.) – 145,500 TPA or combination of both as per market demand, within prescribed capacity.

Environmental settings of the site:

Sl.No.	Particulars	Details			Remarks									
1.	Total Land	2.02 Ha			Land Use: Industrial Land									
2.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Total area – 2.02 Ha (4.99 acres) [Acquired Land: 2.02 Ha]  Additional 0.55 Ha. (1.36 acres) land for plantation			Additional land 1.36 acres to be acquired for plantation									
3.	Existence of habitation & involvement of R&R, if any	<b>Project Site: Nil</b>  <b>Study Area:</b> <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Nearest Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Egarkunr village</td> <td>0.05km</td> <td>South</td> </tr> <tr> <td>Rajpura Village</td> <td>0.13km</td> <td>West</td> </tr> </tbody> </table>			Nearest Habitation	Distance	Direction	Egarkunr village	0.05km	South	Rajpura Village	0.13km	West	R&R: Not Involved
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4.	Latitude and longitude of all	<table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>23° 45' 50.278" N</td> <td>86° 46' 3.839" E</td> </tr> </tbody> </table>	Point	Latitude	Longitude	1	23° 45' 50.278" N	86° 46' 3.839" E						
Point	Latitude	Longitude												
1	23° 45' 50.278" N	86° 46' 3.839" E												



Sl.No.	Particulars	Details			Remarks															
	corners of the project site	2	23° 45' 49.465" N	86° 46' 4.886" E																
		3	23° 45' 47.750" N	86° 46' 5.763" E																
		4	23° 45' 47.070" N	86° 46' 5.403" E																
		5	23° 45' 47.059" N	86° 46' 3.946" E																
		6	23° 45' 45.246" N	86° 46' 3.829" E																
		7	23° 45' 43.030" N	86° 46' 2.618" E																
		8	23° 45' 44.232" N	86° 45' 59.387" E																
		9	23° 45' 45.232" N	86° 45' 57.992" E																
		10	23° 45' 48.812" N	86° 45' 59.746" E																
		11	23° 45' 50.220" N	86° 46' 1.242" E																
		12	23° 45' 49.352" N	86° 46' 2.877" E																
5.	Elevation of the project site	166 – 169 meters above mean sea level																		
6.	Involvement of Forest Land, if any	No Involvement of Forest Land																		
7.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	<p><b>Project Site: Nil</b></p> <p><b>Study Area:</b></p> <table border="1"> <thead> <tr> <th>Water-body</th> <th>Distance (Km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Khudia River</td> <td>2.79</td> <td>NW</td> </tr> <tr> <td>Barakar River</td> <td>4.84</td> <td>E</td> </tr> <tr> <td>Maithon Reservoir</td> <td>4.03</td> <td>NE</td> </tr> <tr> <td>Panchet Reservoir</td> <td>7.80</td> <td>SW</td> </tr> </tbody> </table>			Water-body	Distance (Km)	Direction	Khudia River	2.79	NW	Barakar River	4.84	E	Maithon Reservoir	4.03	NE	Panchet Reservoir	7.80	SW	
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Panchet Reservoir	7.80	SW																		
7.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	<p><b>Study area:</b></p> <p>No existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ Reserve Forest/ tiger reserve/ elephant reserve etc. if any within the study area</p> <p><b>List of Protected Forest</b></p> <ul style="list-style-type: none"> <li>➤ Puyaldih PF is at 2.71 km in NNE direction</li> <li>➤ Gogna PF is at 4.43 km in NE direction</li> <li>➤ Maithon PF is at 6.08 km in ENE direction</li> </ul>																		

Proposed expansion shall be done within the existing plant area of 2.02 Ha (4.99 Acres), land details as below:

Khata no. & Plot no. of the project :

Khata No.	Plot No.
3	690, 697
97	695
98	691, 692, 693
203	696

The plant is operating on CTE/ CTO of Jharkhand State Pollution Control Board (JSPCB) as the project did not attract any conditions as per the EIA Notification, 2006. The existing project was accorded with Consent to Establish (CTE) vide letter no. 2822 dated 06.05.2003 from JSPCB for production of 45TPD MS Ingots. Thereafter, company enhanced its production of MS Ingots from 45TPD to 90TPD after obtaining another CTE vide memo no. LN-329 dated 07.12.2010 from JSPCB. CTE was obtained from JSPCB vide lt. no. JSPCB/HO/RNC/CTE-8777503/2020/386 dt. 06.10.2020 for installation of Slag Crusher for capacity 9,000TPA and CTO for the same was obtained from JSPCB vide lt. no. JSPCB/HO/RNC/CTO-13168641/2022/957 dt. 04.07.2022 and is valid till 30.06.2024. At present company is having CTO dated 12.09.2019 from JSPCB for the production of 27,000TPA MS Ingots, valid till 30.06.2024.

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

Sl. No	Plant Facilities	Existing Configuration		Proposed Configuration		Final Configuration	
		Unit	Capacity	Unit	Capacity	Unit	Capacity
1.	Induction Furnace	2x4T	27,000TPA MS Ingot	3x15T IF (replacement of Existing 2x4T Furnace with 2x15T & Addition of 1x15T Furnace)	148,500TPA MS Ingot/Billets	3x15T	MS Ingot/Billets 148,500 TPA
	Continuous Casting Machine	1 x 2 strand Rad - 4/7 m		1 x 2 strand Rad - 4/7 m		1x15 T LRF	
2.	Reheating Furnace (emergency use)	--	--	1x30 TPH	99,000 TPA	1x30TPH	99,000 TPA

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Sl. No	Plant Facilities	Existing Configuration		Proposed Configuration		Final Configuration	
		Unit	Capacity	Unit	Capacity	Unit	Capacity
3.	Rolling Mill (Direct Hot Charging)	--	--	1x25TPH	145,500 TPA Rolled Products (TMT Bars, Structural, etc)	1x25TPH	145,500 TPA Rolled Products (TMT Bars, Structural, etc.)
4.	Slag Crusher	1x3TPH	9000 TPA Max.	Capacity enhancement of Slag Crusher to 1x10TPH	24,000 TPA Max.	1x10TPH	33,000 TPA Max.

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

Sl. No.	Item	Existing Requirement in TPA	Proposed Requirement in TPA	Total Requirement in TPA	Source	Distance & Mode of Transport
<b>STEEL MELTING SHOP --(MS Ingot/Billets 148,500 TPA)</b>						
1.	Sponge Iron	21,600	97,200	1,18,800	Sponge Iron & Steel Plants in Jharkhand	40 to 120 km By Road
2.	Pig Iron	8,100	36,450	44,550		
3.	Scrap	4,050	18,225	22,275		
4.	Ferro-alloys	54	243	297		
<b>Total</b>		<b>33,804</b>	<b>152,118</b>	<b>185922</b>		
<b>ROLLING MILL --145,500TPA Rolled Products (TMT Bar, Structural, etc.)</b>						
1.	Hot MS Ingot/Billets	--	148,500	148,500	In house	--
<b>REHEATING FURNACE- 1x30TPH (emergency &amp; startup use)</b>						
1.	Coal/ Furnace Oil	--	11088 TPA/ 3300 KL	11088 TPA/ 3300 KL	Purchase from open market	Within 10kms

The existing water requirement for the plant is 30KLD. The total water requirement after the proposed expansion is 190KLD. The water is/will be sourced from ground water through bore well. Company has obtained NOC dated 01.06.2021 from Central Ground Water Authority (CGWA) for the withdrawal of 50KLD of groundwater and is valid upto 31.05.2024 and permission for additional water required will also be obtained from CGWA.

Total requirement of power for the after proposed expansion will be 22.0MVA. Existing requirement of power for the operation of existing units is 3.0MVA and requirement is met through DVC. Permission for the additional power requirement shall be obtained from DVC.

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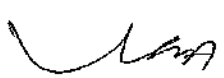




An estimated capital cost of the project is Rs. 4450.0 Lakhs. Total estimated cost after the expansion will be Rs. 4814.92 Lakhs. The employment generation from the proposed expansion will be 133 Nos.

This project will be installed within the existing area of 2.02 Ha (4.99 Acres). An additional Land of 1.36Acres (0.55 ha) will be acquired within 5 Km of the project boundary for development of plantation. With this total area developed as greenbelt/plantation by the company will be 2.10Acres, including the greenbelt area of 0.743 acres within the project site. The total plantation of 2.10 acres will be approx. 42.08% of the plant area and 33.07% of the combined project activity area of 6.35 acres (4.99 acres + 1.36 acres).






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

Terms of Reference Baseline data collection period: 1<sup>st</sup> March 2023 to 31<sup>st</sup> May 2023 as below:

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
<b>A. Air</b>				
a. Meteorological parameters	Temp., Relative Humidity, Wind Speed, Wind Direction, Rainfall	1 Location	Hourly sampling for three months	Secondary data from IMD, New Delhi for the nearest IMD station
b. AAQ parameters	PM10, PM2.5, SO2, NOx, CO	8 Locations	24-hourly sampling, twice a week for 12 weeks	Monitoring Network: 1 location in nearby habitation, 2 locations in upwind, 2 location in downwind, 2 in Crosswind and 1 project Site (Covering all sensitive receptors also)
<b>B. Noise</b>	Leq (Day & Night), Lmax (Day & Night), Lmin (Day & Night)	8 Locations	24-hourly sampling, twice in a week (working and non-working day) for 3 months	Monitoring Network: 1 at the project site, 7 in the nearby villages (All the sensitive receptors covered)
<b>C. Water</b>				

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Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
a. Surface water quality parameters	pH, EC, NO <sub>3</sub> , Na, K, Fe, Al, Ca, Cl, Cr, Mg, TDS, TSS, DO, SO <sub>4</sub> , F, BOD, COD, Zn, Cu, Mn, Cd, Turbidity, Odour	8 Locations	Once in a day in each month for one season	Sampling from Barakar River, Maithon Reservoir, Khudiya Nadi and 4 from Village Ponds
b. Ground water quality parameters	pH, Ca, Cl, Mg, TDS, SO <sub>4</sub> , F, NO <sub>3</sub> , Fe, Al, Zn, Cu, Mn, Cd, Pb, Hg, EC, Turbidity, Odour	8 Locations	Once in a day in each month for one season	One grab sample per location
<b>D. Land</b>				
a. Soil quality	pH, Conductivity, Soil Texture, Water Holding Capacity, Cl, Ca, Na, K, Organic matter, Mg, N, Zn, Mn, Phosphorus, Pb, Cd, Cr, Cu.	8 Locations	Once in a day in each month for one season	One sample from project site and one from Agriculture land, forest area, near water body and nearby villages.
<b>E. Biological</b>				
a. Aquatic	Species of Plants and Avifauna	10 km Radius study area	one season	Secondary data has been collected from Government offices, NGOs, published literature
b. Terrestrial	Species of Plants and Animals	10 km Radius study area	one season	Secondary data has been collected from Government offices, NGOs, published literature






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Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
<i>F. Socio-economic parameters</i>	Demographic details and Occupational details	10 km Radius study area	One Season	Secondary data from census records, statistical hard books, Topo sheets, health records and relevant official records available with Govt. agencies.

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

**STATUTORY CLEARANCES :**

1	LOI/Lease docs	:	Land lease deed (M/s Kumardhubi Steels Pvt. Ltd.)
2	CO	:	The CO, Nirsa (Dhanbad) vide letter no. 77, dated 25.01.2020 and CO, Agyarkund (Dhanbad) vide letter no. 903, dated 13.07.2023 have mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DFO Wild Life	:	DFO, Wildlife Hazaribag vide letter no. 237, dated 01.02.2020 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
4	DFO Forest Distance	:	DFO, Dhanbad Forest Division vide letter no. 373, dated 18.02.2020 certified that the distance of reserved / protected forest is 2000 meters from project site.
5	No Objection Certificate (NOC)	:	NOC issued by JSPCB vide : i. Ref. no. : 2822, dated 06.05.2003. ii. Memo no. : LN-329, dated 07.12.2010.
6	Consent to Establish (CTE)	:	CTE issued by JSPCB vide Ref. no. : JSPCB/HO/RNC/CTE-8777503/2020/386, dated 06.10.2020.
7	Consent to Operate (CTO)	:	CTO issued by JSPCB vide Ref. no. :

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			i. JSPCB/HO/RNC/CTO-5657700/2019/1801, dated 12.09.2019. ii. JSPCB/HO/RNC/CTO-13168641/2022/957, dated 04.07.2022.
8	CGWA	:	No Objection Certificate (NOC) for Ground Water Abstraction vide NOC no. CGWA/NOC/IND/ORIG/2021/12409, dated 01.06.2021 (valid up to 31.05.2024)

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 16, 17, 18, 19 & 20.08.2023, the Committee recommends for issuing of TOR to SEIAA for undertaking detailed EIA / EMP study as mentioned in Annexure IV.

\*\*\*\*\*

- 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/IND1/440120 /2023)

Name of the consultant : Vardan Environet, Haryana.

This is a new project which has been taken for appraisal on 19.08.2023.

M/s Lall Steel Pvt. Ltd has made an online application vide proposal no. SIA/JH/IND1/440120/2023 dated 14.08.2023 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 99<sup>th</sup> meeting held on 07 - 11.12.2022 and SEIAA, Jharkhand has approved the ToRs in 100<sup>th</sup> meeting held on 21<sup>st</sup> & 22<sup>nd</sup> December, 2022. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2022-23/2674/2022/345, date 29.12.2022. The final EIA / EMP submitted by PP to SEIAA on 14.08.2023 and which was forwarded to SEAC on 14.08.2023.

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The project of M/s Lall Steel Pvt Ltd., an existing steel plant located at Village: Mahtodih, P.S. – Mahtodih, P.O.: Udnabad, District: Giridih, State: Jharkhand is for obtaining fresh EC for enhancing the production of TMT Bars/Rods from 16,500TPA to 64,680TPA by modernization of Existing Re-Rolling Mill from 5TPH to 10TPH capacity and by enhancing the production of M.S. Billets from 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 within the existing plant premises of 7.57Ha.

The project was initially started by M/s Naiyadhi Hi-tech Pvt. Ltd. in the year 1997-98 after obtaining consent to establish (NoC) from Bihar State Pollution Control Board. The unit was later takeover by M/s Lall Steel Pvt. Ltd. on 27th May, 2011.

Environmental Settings of the Site:

S. No.	Particulars	Details	Remarks																											
1	Total land	7.57ha [Private:7.57ha]	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 have been submitted.  R&R is not applicable <b>Existence of Habitation</b> Project Site – Nil Study Area: Nearest <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Mohanpur village</td> <td>0.31</td> <td>ESE</td> </tr> </tbody> </table>	Habitation	Distance	Direction	Mohanpur village	0.31	ESE	Total land in possession.  No R&R applicable																					
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		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																			
		R	24° 8'50.882"N	86°20'34.040"E																			
		S	24° 8'52.676"N	86°20'35.188"E																			
4	Elevation of the project site	281 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	<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>Usri River</td> <td>2.5km</td> <td>NNE</td> </tr> <tr> <td>Dhirabar Nadi</td> <td>4.45km</td> <td>NNW</td> </tr> <tr> <td>Khakho Nadi</td> <td>6.65km</td> <td>West</td> </tr> <tr> <td>Barakar Nadi</td> <td>8.92km</td> <td>South</td> </tr> <tr> <td>Khandoli Dam</td> <td>9.57km</td> <td>N</td> </tr> </tbody> </table>			Water Body	Distance	Direction	Usri River	2.5km	NNE	Dhirabar Nadi	4.45km	NNW	Khakho Nadi	6.65km	West	Barakar Nadi	8.92km	South	Khandoli Dam	9.57km	N	--
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7	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	<p>No National Park/ ESZ/ ESA/Wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/ Reserve Forest within 10km radius of the project site.</p> <p>Only few protected forests present within 10 km radius of the project-</p> <ol style="list-style-type: none"> <li>1. Jhalakd PF is at 2.42 km in SE direction.</li> <li>2. Birangadda PF is at 2.94 km in East direction.</li> <li>3. Kolhamanjo PF is at 4.69 km in SSW</li> </ol>			--																		

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S. No.	Particulars	Details	Remarks
		direction.	

**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

Erstwhile Company M/s Naiyadhi Hi-tech Pvt. Ltd. started with production of 20TPD MS Ingots after obtaining Consent to Establish (NoC) vide ref. no. T-4500 dated 23.08.1996 from Bihar State Pollution Control Board (BSPCB) and Consent To Operate (CTO) for the same was obtained vide ref. no. B-1431 dated 20.05.1998 from BSPCB. Company obtained another CTE vide ref. no. T-6478 dated 31.12.1999 from BSPCB for enhancing the production capacity of MS Ingots from 20TPD to 37TPD. Further company obtained another CTE vide ref. no. T-6479 dated 31.12.1999 from BSPCB for the installation of Re-Rolling mill of 50TPD capacity within the same plant premises. Company regularly obtained CTO from BSPCB till 2011. On 27th May, 2011 the company was taken over by M/s Lall Steels Pvt Ltd and CTO to the present company was granted for the production of 37TPD MS Ingots and 50TPD MS Bars vide ref. no.-1911 dated 11.06.2014 from JSPCB in the name of M/s Lall Steels Pvt Ltd. Thereafter, M/s Lall Steels Pvt Ltd obtained CTE for installation of Continuous Casting Machine (CCM) for the production of 37TPD MS Billets in place of MS Ingots vide Ref No. JSPCB/HO/RNC/CTE- 5535934/2019/545 dated 24/09/2019 from JSPCB. And CTO for the same was obtained from JSPCB vide ref no. JSPCB/HO/RNC/CTO-6943167/2020/437, dated 19.02.2020. Now company is in operation with valid CTO from JSPCB vide Ref. No. JSPCB/HO/RNC/CTO-12047631/2022/220, dated 27.02.2022 and it is valid up to 31.12.2023.

As per MoEFCC, OM dated 08.06.2022, certified compliance report from JSPCB, dated 12.08.2023, of current CTO is submitted and most of the conditions complied with.

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

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Sl. No.	Plant Facilities	Existing Configuration	Proposed Configuration	Final Production Capacity (TPA)
1	Induction Furnace	12,210 TPA (1x4T)	66,990 TPA (2x10T – New addition)	MS Billets 79,200 TPA (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)	64,680 TPA (Modernization of existing 1x5TPH Rolling Mill to 1x10TPH)	Rolled Products (TMT Bars/ Rods etc.) 64,680 TPA
3	Reheating Furnace (Coal Fired)	50 TPD (1x2.5TPH)	--	50TPD (Will be operated only in Emergency)

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	Total after expansion Requirement in TPA	Source	Distance & Mode of Transport
<b>IF with CCM- MS Billets Production</b>		<b>12,210 TPA</b>	<b>79,200 TPA</b>	Local Plants in Giridih	25 km Through Road
1.	Sponge Iron	9,768	63,360		
2.	Pig Iron	3,663	23,760		
3.	Scrap	1,831	11,880		
4.	Ferro-alloys (Si Mn/Fe Si)	24	158		
<b>Total</b>		<b>15,286</b>	<b>99,158</b>		
<b>Rolling Mill – TMT Bars/Rods</b>		<b>16,500TPA</b>	<b>64,680 TPA</b>	--	
1.	Hot Billets/MS Billets	16,830	66,000 TPA	Billets 66,000TPA will be used for in-house rolling mill & Balance 13200TPA sold to other plants	In-house
<b>Reheating Furnace -50 TPD (only in emergency &amp; startup)</b>					

*A* *W* *edu* *Q* *b* *Q*




Sl. No.	Item	Existing Requirement in TPA	Total after expansion Requirement in TPA	Source	Distance & Mode of Transport
1.	Coal	1,050	1050	Open market / auction	25-60 km Through Road

The total requirement of makeup water for industrial and domestic purposes after the proposed expansion will be 113 KLD. The Company will procure water from ground water sources through bore wells with due permission from Central Ground Water Authority (CGWA). Application vide Ref No. 21- 4/934/JH/IND/2022 dated 30.07.2022 has been submitted to Central Ground Water Authority (CGWA) to obtain the NOC for 113 KLD of water withdrawal through bore well. In principal approval recommended by concerned authority subject to payment of dues by the unit. Letter for the same awaited.

Total requirement of power for the after proposed expansion will be 12.2MVA. Existing requirement of power for the operation of existing units is 2.2MVA and requirement is met through DVC. Permission for the additional power requirement has been obtained from DVC. One DG set of 2x180kVA will be installed along with the existing DG set of 1x500kVA.

Baseline Environmental Studies: 1<sup>st</sup> October 2022 to 31<sup>st</sup> December 2022

Parameters	Description	Permissible Level/Standards
AAQ parameters at 8 Locations (min and max)	PM2.5 28.7 and 47.8 µg /m <sup>3</sup> PM10 60.9 and 82.9 µg /m <sup>3</sup> SO <sub>2</sub> 9.2 and 28.3 µg /m <sup>3</sup> NO <sub>2</sub> 17.3 and 35.6 µg/m <sup>3</sup> CO 0.6 and 1.7 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 7.54 to 7.98 Total Hardness varies from 225.34 to 267.43 mg/L. Total Dissolved Solids varies from 422 to 462 mg/L.	6.5-8.5 200-600 mg/L 500-2000 mg/L
Surface Water Quality	pH varies from to 7.49 to 7.92 Dissolved Oxygen varies from 5.6 to 6.8 mg/L. BOD varies from 4.0 to 37.0 mg/L.	IS:2296 Class C Norms
Soil Quality	pH 7.48 to 7.81 Potassium K 138.11 to 179.48 kg/ha Available nitrogen N 142.86 to 181.42 (Kg/hect) Organic matter 0.32 - 0.51 %	----

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Parameters	Description	Permissible Level/Standards																				
Noise Level	Day Time (6:00 a.m. to 10:00 p.m.) 73.61 Leq dB(A) Night Time (10:00 p.m. to 6:00 a.m.) 68.47 Leq dB(A)	75 Leq dB (A) 70 Leq dB (A)																				
	Day Time (6:00 a.m. to 10:00 p.m.) 49.82 Leq dB(A) to 54.15 Leq dB(A) Night Time (10:00 p.m. to 6:00 a.m.) 39.89 Leq dB(A) and 43.84 Leq dB(A)	55 Leq dB (A) 45 Leq dB (A)																				
Traffic assessment study findings	<ul style="list-style-type: none"> <li>The traffic study was carried at two locations SH-13 (Koderma-Giridih-Tundi-Govindpur Marg) at 4m road distance in East direction.</li> <li>Transportation of Raw material, Fuel and Finished product will be done by Road.</li> <li>Existing PCU is 4702PCU/Day on SH-13 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>SH-13</td> <td>4702</td> <td>15000</td> <td>0.31</td> <td>B</td> </tr> </tbody> </table> <p>PCU load after proposed project will be 4753 PCU/Day (Existing 4702 + 51) for SH-13 and level of service (LOS) will be;</p> <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>SH 13</td> <td>4753</td> <td>15000</td> <td>0.316</td> <td>B</td> </tr> </tbody> </table> <p><i>Conclusion: Level of Service will be "B" i.e. Very Good for SH-13 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	SH-13	4702	15000	0.31	B	Road	V (Volume in PCU/day)	C (Capacity in PCU/day)	V/C Ratio	LOS	SH 13	4753	15000	0.316	B	
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Road	V (Volume in PCU/day)	C (Capacity in PCU/day)	V/C Ratio	LOS																		
SH 13	4753	15000	0.316	B																		
Flora and fauna	As per reconnaissance survey Schedule - I fauna species found within 10km of the study area. fauna are Mammals like Grey Mongoose, Indian Porcupine, Jungle Cat, Otter, Sambar, Jackal, Striped Hyaena, Bengal Fox, Indian Pangolin, Indian Elephant, Small Indian Civet, Wolf, Wild Dog, Sloth Bear, Rusell Viper, Indian Python,	--																				

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Parameters	Description	Permissible Level/Standards
	Indian Cobra, Common Rat snake, Monitor lizard, Crested Serpent Eagle, White Rumped Vulture, Owl, Indian Peafowl. The detailed study is given in Final EIA/EMP report. Total 23 numbers (14 mammals, 5 herpetofauna and 4 Aves) Schedule-1 species have been identified/reported is in the study area. Wildlife conservation plan has been prepared and submitted.	

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	16632	Supplied to outside parties for metal extraction and balance use for construction filling.
CCM	End cuts & Scales	902	Will be charged back as scrap in the induction furnace for In-House Reuse.
Rolling Mill	End cuttings & Mill Scale	1320	Will be charged back as scrap in the induction furnace for In-House Reuse.
Bag filter dust	Dust from process	119	Supplied to construction contractors for use in construction fillings or Low Landfilling.
Reheating Furnace	Dust & ash from Reheating Furnace	250 (max.)	Will be generated only if reheating furnace is operated - sent to ash brick/blocks Manufactures

**Public Consultation :**

Details of advertisement given	"Hindustan Dhanbad" and "The Times of India" on dated 13.04.2023.
Date of public consultation	16.05.2022
Venue	Pawan Chudiwala Garden, besides Utsav Upwan Hotel, Harsinghraidih, Tundi Road, District Giridih, Jharkhand
Presiding Officer	Mr. Alok Kumar - Director D.R.D.A, Giridih
Major issues raised	The issues raised in the public hearing were for employment to be given to local people in the proposed expansion project.

*A* *WMA* *COM* *R* *H* *M*

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

Sl. No.	Activities	Year of Implementation (Budget in INR)			Total Expenditure (Rs.)
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	
1	2 no. of Bore well and install water cooler cum purifier at Utkramit Madhya Vidyalay and Hanuman Mandir of Udanbad.	Rs. 5.0 Lakhs	--	--	5.0 Lakhs
2.	20 Solar Power Street light at Mahtodih village to Bhorandih Village alongside the road.	Rs. 4.0 Lakhs	--	--	Rs. 4.0 Lakhs
3.	Tree Plantation alongside the road with fencing at Bhorandiha to Burhiadih village.	--	Rs. 5.0 Lakhs	--	Rs. 5.0 Lakhs
4.	Provide Computer, Smart class and furniture to Primary Middle School Tikodih.	--	--	Rs. 10.0 Lakhs	Rs. 10.0 Lakhs
5.	Renovation of Bajrangballi temple of Mohanpur and provide 1 no. of Bore well with water cooler cum purifier system.	Rs. 4.0 lakhs	--	--	Rs. 4.0 lakhs
6.	Provide Books to Utkarmi Madhya Vidyalaya of Mohanpur village	--	--	Rs. 2.5 Lakhs	Rs. 2.5 Lakhs
7.	Renovation of Drainage System of Mahtodih village	Rs. 1.5 lakh	--	--	Rs. 1.5 lakh
<b>Total</b>		Rs. 14.5 Lakhs	Rs. 5.0 Lakhs	Rs. 12.5 Lakhs	Rs. 32.0 Lakhs

*A* *Utk* *edw* *B* *↓* *Utk*

Existing Capital cost of project was Rs. 9.2635 Crores. The capital cost of the proposed project is envisaged as Rs. 12.44 Crores and the capital cost for environmental protection measures (EMP) is proposed as Rs. 1.1262 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 19.84 Lakhs.

The employment generation from the proposed expansion is 90.

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




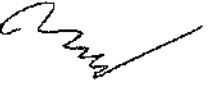
Sl. No.	Environmental Protection Measures	Capital Cost Rs. In lakhs	Recurring Cost Rs. In lakhs/year
1	<b>Air Pollution Control Measures</b>		
	1 no. of Fume extraction system with spark arrestor and Bag Filter with proposed 2x10T Induction Furnace	30.0	1.5
	Maintenance of Existing Fume extractor with bag filter with 1x4 Ton IF		
	<b>Sub Total (A)</b>	<b>30.0</b>	<b>1.5</b>
2	<b>Water Pollution Control Measures</b>		
	Rainwater Harvesting System	4.0	0.20
	Softening plant and neutralization pit (1 Nos.)	5.0	1.0
	<b>Sub Total (B)</b>	<b>9.0</b>	<b>1.20</b>
3.	<b>Noise Pollution Control Measures</b>		
	Acoustic Enclosure or Separate housing for DG Set and Compressor	10.0	1.5
	<b>Sub Total (C)</b>	<b>10.0</b>	<b>1.5</b>
4.	<b>Storage and Solid Waste Management</b>		
	RCC flooring for storage raw materials and storage of Bag filter Dust, to avoid leaching	5.0	0.5
	Concrete platform with bund wall and oil collection system for storage of HSD, and other Oil Drums and Used Oil	2.0	0.5

*A* *WMA* *equ* *(B)*

*17* *med*



Sl. No.	Environmental Protection Measures	Capital Cost Rs. In lakhs	Recurring Cost Rs. In lakhs/year
	<b>Sub Total (D)</b>	<b>7.0</b>	<b>1.0</b>
<b>5.</b>	<b>Environment Monitoring Program</b>		
	Installation of 1 No. of CAAQMS	21.0	1.38
	Installation of online flow meter & PTZ CCTV camera	2.0	0.15
	Post Project Monitoring - Cost of monitoring of environmental parameters for Ambient Air, Fugitive Emission, Stack emissions, Effluent, Ground water quality, Soil Quality, Ambient & Work Zone Noise Levels monitoring, TCLP Test, Efficiency Monitoring of Pollution Control equipment	--	4.24
	Periodical Medical Examination of Workers	--	0.75
	<b>Sub Total (E)</b>	<b>23.0</b>	<b>6.52</b>
<b>6.</b>	<b>Occupational Health &amp; Safety</b>	<b>11.0</b>	<b>6.5</b>
<b>7.</b>	<b>Greenbelt Development and Landscaping</b>	<b>22.62</b>	<b>1.62</b>
<b>8.</b>	<b>Public Hearing Action Plan</b>	<b>32.0</b>	<b>-</b>
	➤ 2 no. of Bore well and install water cooler cum purifier at Utkramit Madhya Vidyalay and Hanuman Mandir of Udanbad.	5.0	-
	➤ 20 Solar Power Street light at Mahtodih village to Bhorandih Village alongside the road.	4.0	-
	➤ Tree Plantation alongside the road with fencing at Bhorandiha to Burhiadih village.	5.0	-
	➤ Provide Computer, Smart class and furniture to Primary Middle School Tikodih.	10.0	-
	➤ Renovation of Bajrangbali temple of Mohanpur and provide 1 no. of Bore well	4.0	-

A   B  

Sl. No.	Environmental Protection Measures	Capital Cost Rs. In lakhs	Recurring Cost Rs. In lakhs/year
	with water cooler cum purifier system.		
	➤ Provide Books to Utkarmi Madhya Vidyalaya of Mohanpur village	2.5	-
	➤ Renovation of Drainage System of Mahtodih village	1.5	-
	<b>Total</b>	<b>144.62</b>	<b>19.84</b>

The greenbelt development will be carried out in 37.26% of total plant area i.e. 6.969 Acres (2.82041Ha). M/s Lall Steels Pvt. Ltd. has already developed a greenbelt on 0.23 ha of the total land area. 585 no. of trees have been planted till date. Under the proposed expansion project company will be planting additional number of trees required to cover 37.26% area under greenbelt development out of total plant area with tree density of 2500 trees per hectare. Therefore, in order to achieve 37.26% greenbelt area, LSPL has proposed for plantation of additional 6465 number of trees on remaining 2.59 Ha area and also for gap filling, as per CPCB guidelines. Total Budget is Rs. 22.62 lakhs for the additional plantation and Rs. 1.6 lakhs for yearly maintenance has been proposed.

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. 198 in List of ACOs with their Certificate/Extension Letter no. NABET/EIA/2326/RA0284 Valid up to April 04.05.2026. Rev. 00.

**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.

*A* *USA* *edu* *R* *b* *Mund*

		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.
5	Public Hearing	: JSPCB, Regional Office –cum- Laboratory, Hazaribag vide letter no. 602, dated 13.06.2023 informed that Public Hearing conducted on 16.05.2023.

Based on the presentation made and information provided, the Committee decided that the proposal for 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 is recommended for grant of EC. The various conditions for grant of EC is enclosed as Annexure – V alongwith the following specific conditions :

- I. Process water and storm water to be handled seperatly and should not be mixed.
- II. Treated effluent water to be reused suitably and shall not be discharged outside.
- III. Ground water to be drawn for use in the project only after obtaining permission from the Competent Authority.
- IV. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.
- V. All raw material to be stored only under covered shed.
- VI. PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.

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- VII. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load. It is to be achieved by solar panels etc meeting ECBC norms.
- VIII. Trees should be developed & maintained not less than 33% of project area.
- IX. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- X. 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.
- XI. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- XII. MSW Collection centre should be located in isolated and preferably unmanned area. Movement of the vehicle carrying waste should be under tarpaulin covered condition only. Route of vehicle should be such that it avoids residential areas as far as practical.
- XIII. ISO 14k EMS system standard to be followed for implementation of EMPs with MRM in place for feedback to Sr management.

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3. Proposed expansion of existing SMS of M/s Radhagopal Ispat LLP, Village : Konra, Barhi Industrial Area, Tehsil : Barhi, Dist. : Hazaribagh, Jharkhand.

(Proposal No. : SIA/JH/IND1/ 425399 /2023).

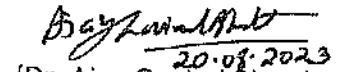
The PAs have requested for deferment of the project vide its letter dated 17.08.2023 forwarded to E-mail. Accordingly, the project is deferred to the next meeting.


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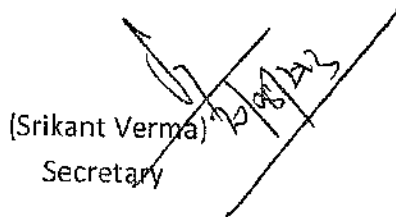
The meeting concluded with thanks to all present.

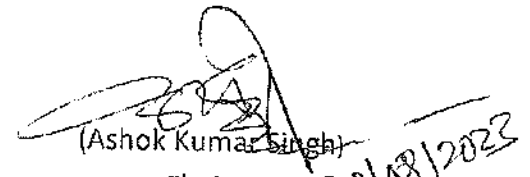
  
(Dr. Raju Kumar)  
Member

  
(Dr. Ajay Govind Bhatt)  
Member

  
(Niranjan Lal Agarwalla)  
Member

  
(Dr. Kirti Avishek)  
Member

  
(Srikant Verma)  
Secretary

  
(Ashok Kumar Singh)  
Chairman

**I. Statutory compliance**

- i. This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.
- ii. In the writ petition (Civil) no. 202/1995, T.N. Godaverman Thirumulpad vs union of India and ors. the Hon'ble Supreme Court passed an order dated 03.06.2022 " National Park or Wildlife Sanctuary must have an ESZ of minimum 01 km in which the activities prescribed and prescribed in the guidelines of 09th February, 2011 shall be strictly adhered to ".
- iii. The Project proponent complies with all the statutory requirements and judgement of Hon'ble Supreme Court dated 2<sup>nd</sup> August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.
- iv. The Hon'ble Supreme Court vide order dated 08.01.2020 in W.P. (Civil) No.114/2014 in the matter of Common Cause vs. Union of India has directed that the area which has been mined should be restored so that grass and other vegetation including trees can grow in the mining area for the benefit of animals.

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

- v. The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgement of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.
- vi. This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.
- vii. This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.
- viii. Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board/Committee.
- ix. The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP

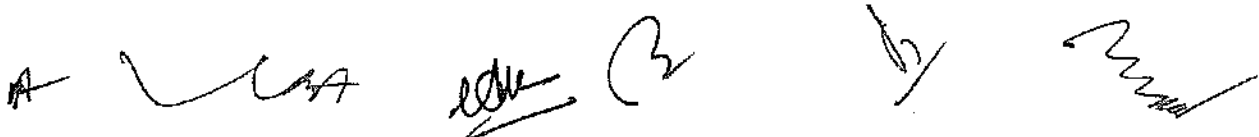
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shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.

- 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-IAJ (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
- xii. The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.
- xiii. A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
- xiv. State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
- xv. The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change ([www.Environmentclearance.nic.in](http://www.Environmentclearance.nic.in)). A copy of the advertisement may be forwarded to the concerned MoEF & CC Regional Office for compliance and record.
- xvi. The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

## II. Air quality monitoring and preservation

- i. The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2; CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCUI, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure

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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 all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC/ Central Pollution Control Board.

### III. Water quality monitoring and preservation

- i. In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF&CC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.
- ii. Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug well located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- iii. Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- iv. The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within

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

- v. Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1/2006-IAJI (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.
- vi. Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEF&CC annually.
- vii. Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.
- viii. The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.

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

- i. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
- ii. The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a

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right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.

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

## V. Mining Plan

- i. The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.
- ii. The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.
- iii. The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional Office.

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## VI. Land reclamation

- i. The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.
- ii. The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.
- iii. The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.
- iv. The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.
- v. The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC.
- vi. Catch drains, settling tanks and ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.
- vii. Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.
- viii. The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the

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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.
- 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

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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 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

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project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.

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

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

- i. The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.
- ii. Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEF&CC and its concerned Regional Office.

#### XI. Miscellaneous

- i. The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.
- ii. The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- iii. It shall be mandatory for the project management to submit six (06) monthly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard copies and soft copies to the regulatory authority concerned Regional Office of MoEF & CC at Ranchi and Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi / CPCB / SEIAA.
- iv. A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.

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- v. The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.
- vi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- vii. The Ministry / SEIAA / SEAC may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- viii. The Ministry / SEIAA / SEAC reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- ix. The Environmental Clearance accorded shall be valid for the period of lease of the mine. The PP shall not increase production rate and alter lease area during the validity of Environmental Clearance.
- x. Any appeal against this Environmental Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.

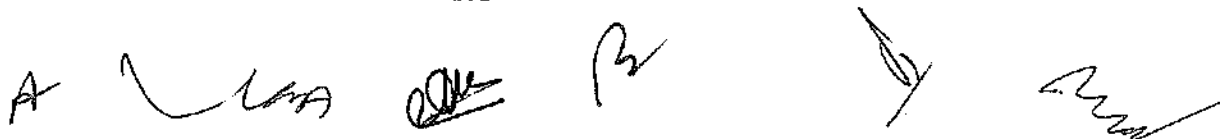


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The TORs prescribed for undertaking detailed EIA study are as follows:

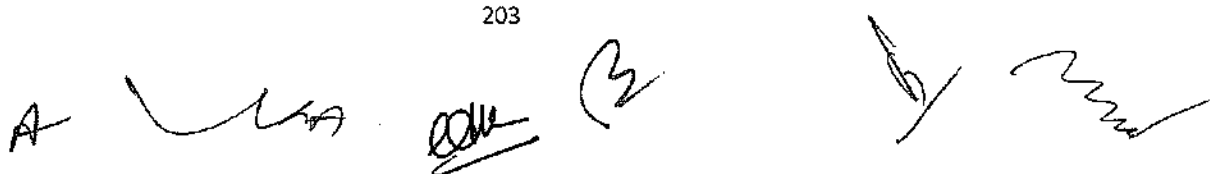
- i. Year - wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
- ii. A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- iii. All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
- iv. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
- v. Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
- vi. Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
- vii. It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.
- viii. Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
- ix. The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.

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- x. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
- xi. Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
- xii. A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
- xiii. Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- xiv. Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
- xv. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- xvi. A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
- xvii. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
- xviii. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in

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- consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- xix. Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.
- xx. Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
- xxi. R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
- xxii. One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.
- xxiii. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.

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- xxiv. The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
- xxv. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- xxvi. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
- xxvii. Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
- xxviii. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
- xxix. Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
- xxx. Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
- xxxi. A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
- xxxii. Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government)

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should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.

- xxxiii. Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- xxxiv. Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- xxxv. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- xxxvi. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- xxxvii. Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
- xxxviii. Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
- xxxix. Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
  - xl. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
  - xli. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
  - xlii. A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
  - xliii. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
  - xliv. Besides the above, the below mentioned general points are also to be followed :-
    - a) Executive Summary of the EIA/EMP Report

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- b) All documents to be properly referenced with index and continuous page numbering.
  - c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
  - d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF & CC / NABL accredited laboratories. All the original analysis / testing reports should be available during appraisal of the Project.
  - e) Where the documents provided are in a language other than English, an English translation should be provided.
  - f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
  - g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF& CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
  - h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF & CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
  - i) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
  - j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.
- xlv. After preparing the draft EIA (as per the generic structure prescribed in Appendix- III of the EIA Notification, 2006) covering the above mentioned issues, the proponent will get the public hearing conducted and take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.
- xlvi. The Prescribed ToRs is valid as per O.M. F. No. IA3-22/10/2022-IA.III[E177258], dated 08.06.2022 of MoEF&CC, Govt. of India.

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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 lightning 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.

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- 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

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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

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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, 20L.6., Ready mixed concrete must be used in building construction.
- ix. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
- x. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

#### VII. Green Cover

- i. No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).
- ii. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.

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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

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- 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.

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- xiv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.
- xvi. The Prescribed EC is valid as per Notification no. S.O. 1807(E) dated 12.04.2022 of MoEF&CC, Govt. of India.

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

**A. Standard Terms of Reference**


**1. Executive Summary**

**2. Introduction**

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

**3. Project Description**

- i. Cost of project and time of completion.
- ii. Products with capacities for the proposed project.
- iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
- iv. List of raw materials required and their source along with mode of transportation.
- v. Other chemicals and materials required with quantities and storage capacities
- vi. Details of Emission, effluents, hazardous waste generation and their management.
- vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
- viii. Process description along with major equipments and machineries, process flow sheet (quantative) from raw material to products to be provided
- ix. Hazard identification and details of proposed safety systems.
- x. Expansion/modernization proposals:
  - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment, Forest and Climate Change as per OM no. F.no. IA3-22/10/2022-IA.III [E 177258], dated 08<sup>th</sup> June, 2022 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing / existing operation of the project from SPCB shall be attached with the EIA-EMP report.
  - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification, 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.



#### 4. Site Details

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

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project location and the recommendations or comments of the Chief Wildlife Warden-  
thereon

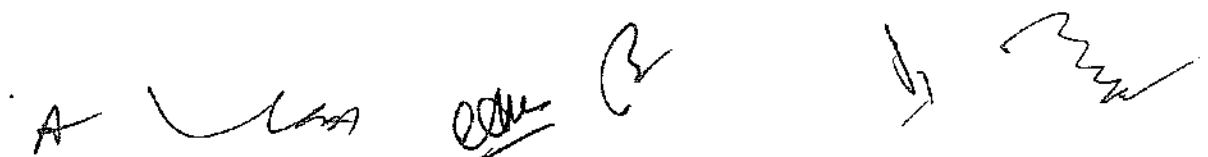
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

## 6. Environmental Status

- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQPM 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

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- provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling - in case of discharge in water body
  - iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor- cum-rail transport shall be examined.
  - iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
  - v. Details of stack emission and action plan for control of emissions to meet standards.
  - vi. Measures for fugitive emission control.
  - vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
  - viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
  - ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 2500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
  - x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
  - xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
  - xii. Action plan for post-project environmental monitoring shall be submitted.
  - xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

#### 8. Occupational health

- i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding

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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)

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1. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs & outputs (material and energy balance).
2. Details on blast furnace/ open hearth furnace/ basic oxygen furnace/ladle refining, casting and rolling plants etc.
3. Details on installation/activation of opacity meters with recording with proper calibration system
4. Details on toxic metals including mercury, arsenic and fluoride emissions
5. Details on stack height requirement for integrated steel
6. Details on ash disposal and management -Non-ferrous metal
7. Complete process flow diagram describing production of lead/zinc/copper/ aluminium, etc.
8. Raw materials substitution or elimination
9. Details on smelting, thermal refining, melting, slag fuming, and Waelz kiln operation
10. Details on Holding and de-gassing of molten metal from primary and secondary aluminum, materials pre-treatment, and from melting and smelting of secondary aluminium
11. Details on solvent recycling
12. Details on precious metals recovery
13. Details on composition, generation and utilization of waste/fuel gases from coke oven plant and their utilization.
14. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
15. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
16. Trace metals in waste material especially slag.
17. Plan for trace metal recovery
18. Trace metals in water

### C. Other

1. Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of SEIAA, Jharkhand with reasons for such changes and permission should be sought, as the TOR may also have to be altered.
2. The Prescribed ToRs is valid as per O.M. F. No. IA3-22/10/2022-IA.III[E177258], dated 08.06.2022. of MoEF&CC, Govt. of India.

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I. **Statutory compliance:**

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (incase of the presence of schedule-I species in the study area)
- iv. In the writ petition (Civil) no. 202/1995, T.N. Godaverman Thirumulpad vs union of India and ors. the Hon'ble Supreme Court passed an order dated 03.06.2022 " National Park or Wildlife Sanctuary must have an ESZ of minimum 01 km in which the activities prescribed and prescribed in the guidelines of 09th February, 2011 shall be strictly adhered to ".
- v. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- vi. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- vii. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

II. **Air quality monitoring and preservation**

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 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.

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- 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 SO2 and NOx emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions. (case to case basis small plants: Manual; Large plants: Continuous)
- iv. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality / fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six- monthly monitoring report.
- v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources.
- vi. The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
- vii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- viii. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after *briquetting*/ agglomeration.
- ix. The project proponent shall use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
- x. The project proponent shall provide covered sheds for raw materials like scrap and sponge iron, lump ore, coke, coal, etc.
- xi. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.
- xii. Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.

### III. Water quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (applicable to IF / EAF) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories. (case to case basis small plants: Manual; Large plants: Continuous)

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- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- iv. Adhere to 'Zero Liquid Discharge'.
- v. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- vi. 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**

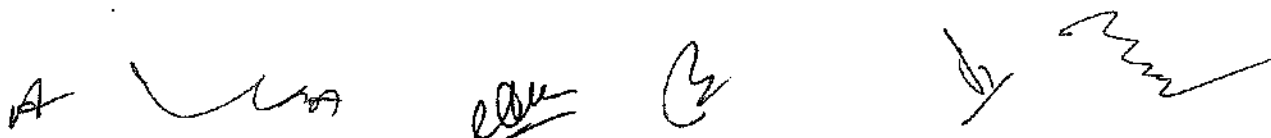
- i. Used refractories shall be recycled as far as possible.
- ii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused melting Furnaces
- iii. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick 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.


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## IX. Corporate Environment Responsibility






- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 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 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. The Prescribed EC is valid as per Notification no. S.O. 1807(E) dated 12.04.2022 of MoEF&CC, Govt. of India.
- iii. In case of any deviation or alteration in the project proposed from those submitted to SEIAA, Jharkhand for clearance, a fresh reference should be made to SEIAA to assess the adequacy of the conditions imposed and to incorporate any new conditions if required.

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**A. SPECIFIC CONDITION:**

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- i. All the recommendations, mitigation measures, environmental protection measures and safeguards proposed in the EIA report of the project and commitments made during presentation before SEAC and proposed in the EIA report shall be strictly adhered to in letter and spirit.
- ii. The unit shall strictly comply with the CPCB guidelines for setting up the Common Bio-Medical Waste Treatment Facility. [CBWTF]
- iii. Proponent shall strictly comply the design criteria for incinerator, autoclave and shredder as per the CPCB guidelines.
- iv. The unit shall strictly setup the dry technology system.
- v. The unit shall strictly ensure mercury waste management at health care facility as per the CPCB guidelines.
- vi. The unit shall establish Standard Operating Procedure for waste collection, handling, transportation, treatment and disposal as per Biomedical Waste Management Rules, 2016.
- vii. Zero Liquid Discharge (ZLD) status shall be maintained all the time.
- viii. There shall be no drainage connections from the premises.

**B. CONSTRUCTION PHASE:**

- i. Water demand during construction shall be reduced by use of curing agents, super plasticizers and other best construction practices.
- ii. Project-proponent shall ensure that surrounding environment shall not be affected due to construction activity.
- iii. Construction materials shall be covered during transportation and regular water sprinkling shall be done in vulnerable areas for controlling fugitive emission.
- iv. All required sanitary and hygienic measures shall be provided before starting the construction activities and to be maintained throughout the construction phase.
- v. First Aid Box shall be made readily available in adequate quantity at all the times.
- vi. The project proponent shall strictly comply with the Building and other Construction Workers (Regulation of Employment & Conditions of Service) Act 1996 and Jharkhand rules made there under and their subsequent amendments. Local byelaws of concern authority shall be complied in letter and spirit.
- vii. Ambient noise levels shall conform to residential standards both during day and night. Incremental pollution load on the ambient air and noise quality shall be closely monitored during construction phase.
- viii. Use of Diesel Generator (DG) sets during construction phase shall be strictly equipped with acoustic enclosure and shall conform to the EPA Rules for air and noise emission standards.
- ix. Safe disposal of sewage and municipal solid wastes generated during the construction phase shall be ensured.

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- x. All topsoil excavated during construction activity shall be used in horticultural/landscape development within the project site.
- xi. Excavated earth to be generated during the construction phase shall be utilized within the premises to the maximum extent possible and balance quantity of excavated earth shall be disposed of with the approval of the competent authority after taking the necessary precautions for general safety and health aspects. Disposal of the excavated earth during construction phase shall not create adverse effect on neighboring communities.
- xii. Project proponent shall prefer use of eco-friendly building materials including fly ash bricks, fly ash paver blocks, Ready Mix Concrete (RMC) and lead free paints in the project.
- xiii. Fly ash shall be used in construction wherever applicable as per provisions of Fly Ash Notification under the E.P. Act, 1986 and its subsequent amendments from time to time. Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to all surroundings.

#### C. OPERATION PHASE:

- i. Consent to Operate shall be obtained from JSPCB under Air (Prevention & Control of Pollution) Act, 1981 and Water (Prevention & Control of Pollution) Act, 1974 before operation, failing which the Environmental Clearance herein shall be deemed to be withdrawn.
- ii. Authorization from Jharkhand State Pollution Control Board shall be obtained as applicable under Bio-Medical Waste Management Rules, 2016.
- iii. The Bio-Medical wastes shall be managed in accordance with the Bio-Medical Waste Management Rules 2016.
- iv. Incinerated ash, used oil, sludge salt, treated biomedical waste and ETP Sludge should be disposed in accordance with BMW Rules, 2016.
- v. The proponent shall comply with the Environmental standards notified by Ministry of Environment, Forest & Climate Change for incinerators along with the technology/guidelines.
- vi. Guidelines published the Central Pollution Control Board from time to time for Common Bio Medical Waste Treatment published shall be referred for implementation.
- vii. There should not be any spillage from the transportation Vehicles.
- viii. The project proponent will set up separate Environmental Management Cell for effective implementation of stipulated environmental safeguards under the supervision of Senior Executive.
- ix. All the recommendations of EMP shall be strictly complied.
- x. The environmental safeguards containing the EIA report shall be implemented in letter & spirit.
- xi. Necessary provision shall be made for firefighting facilities within the complex.

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- xii. Treated flue gas emissions discharged through stack to atmosphere shall always be less than specific emission' standards.
- xiii. Project Proponent shall ensure regular operation and maintenance of the ETP and printed logbook shall be maintained
- xiv. All the pipelines carrying water/ waste water should be distinguished using colour coding on raw water pipes and reuse lines of treated water.
- xv. Utilization of Diesel power generating sets is subject to power failure condition only. The DG sets proposed as a source of power back up during operation phase should be of enclosed type, low sulphur diesel run and conform to rules made under the Environment (Protection) Act, 1986. The DG sets should be subjected to periodic noise and stack monitoring.
- xvi. Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.
- xvii. Energy Conservation measures such as LEDs light for common lighting of areas, signage etc should be adopted.
- xviii. The unit shall develop 33% plot area as a green belt within premises as per the CPCB guidelines.

#### D. WATER:

- i. Total water requirement for the project shall not exceed 20 KL/day and wastewater generation would be around 15 KLD, the wastewater generated will be treated in ETP.
- ii. State Ground Water Board / Central Ground Water Board permission should be taken before water uses as per project requirement.
- iii. Waste water generation from floor washing, vehicle washing and Autoclaving (4 L/day) shall be treated in proposed ETP. (Cap. 15 KL/Day).
- iv. Entire quantity of treated waste water shall be reused for industrial purpose within the premises after conforming the JSPCB norms.
- v. The unit shall provide adequate effluent treatment plant (ETP) comprises of Primary, tertiary treatment plants and it shall be operated regularly and efficiently so as to ensure reuse for quenching process.
- vi. Separate energy meter shall be provided at ETP. A proper operation logbook of the ETP containing records of quantities and qualities of treated effluent.
- vii. The domestic wastewater generation shall not exceed 2.4 KL/day for proposed project and it shall be disposed of into soak pit system.
- viii. The Zero wastewater discharge condition to be achieved with utilizing treated effluent for lime slurry preparation for spraying in reactor for quenching process as well as floor and vehicle washing.
- ix. The project proponent shall provide electromagnetic flow meter at the inlet & outlet of the water supply, Inlet & outlet of the ETP and shall maintain a record of readings of each such meter on daily basis.

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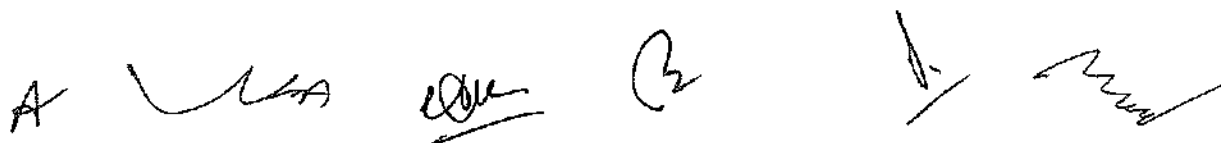
- x. The quantity of fresh water usage and water recycling shall be monitored & maintained so that water balance as projected by the project proponent. The record shall be submitted to the JSPCB, SEIAA & Regional Office, MoEF & CC along with six monthly monitoring reports.

#### E. AIR:

- i. Regular monitoring of ground level concentration of PM10, PM2.5, NOx and VOC shall be carried out at the site and downwind direction and its records shall be maintained. Ambient air quality levels shall not exceed the standards stipulated by the CPCB. If at any stage these levels are found to exceed the prescribed limits, necessary additional control measures shall be taken immediately.
- ii. Proponent shall strictly follow the odour control measures as suggested in environmental management plan.
- iii. Proponent shall strictly follow the Environmental Monitoring Program [EMP] for Ambient Air Quality Monitoring (AAQM).
- iv. Treated flue gas emissions discharged through stack to atmosphere shall always be less than CPCB stipulated emission standards.
- v. DG sets should be maintained as per the norms prescribed by Govt. of Jharkhand.
- vi. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution and shall conform to the EPA Rules for air and noise emission standards.
- vii. A green belt shall be developed all around the plant boundary and also along the roads to mitigate fugitive & transport dust emission.

#### F. SOLID/HAZARDOUS WASTE:

- i. The Company shall strictly comply with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, as may be amended from time to time. Authorization of the JSPCB shall be obtained for collection / treatment / storage / disposal of hazardous wastes.
- ii. Hazardous wastes shall be dried, packed and stored in separate designated hazardous waste storage facility with pucca bottom and leachate collection facility, before its disposal.
- iii. Incinerator Ash, ETP sludge & salt sludge (From reactor) shall be disposed off at the nearby common TSDF.
- iv. Treated Biomedical plastic waste shall be sold out to JSPCB authorized recycler only.
- v. Used Oil shall be either reused for lubrication in plant machineries or sold out to registered recyclers,
- vi. Discarded container / bags shall be either reused or sold only to the authorized recyclers.
- vii. Treated glass waste shall be sold out to JSPCB authorized recycler only.
- viii. Sharp waste shall be disposed through in-house designated concrete sharp pit and disposal to sanitary landfill.

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- ix. The unit shall obtain necessary permission from the nearby TSDF site.
- x. Trucks / Tankers used for transportation of hazardous waste shall be in accordance with the provisions under the Motor Vehicle Act, 1988, and rules made there under.
- xi. The design of the Trucks/tankers shall be such that there is no spillage during transportation.
- xii. All possible efforts shall be made for Co-Processing of the Hazardous waste prior to disposal into TSDF/CHWIF.
- xiii. Management of fly ash (If any) shall be as per the Fly ash Notification, 2009 & its amendment time to time and it shall be ensured that there is 100% utilization of fly ash to be generated from the unit.

**G. SAFETY:**

- i. The occupier/manager shall strictly comply the provisions under the Factories Act 1948 and the Factories Rules of the State of Jharkhand.
- ii. The project authorities shall strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules (MSIHC) 1989, as amended time to time and the Public Liability Insurance Act for handling of hazardous chemicals etc. Necessary approvals from the Chief Controller of Explosives and concerned Govt. Authorities shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans have to be prepared and implemented.
- iii. Main entry and exit shall be separate and clearly marked in the facility.
- iv. Sufficient peripheral open passage shall be kept in the margin area for free movement of fire tender/ emergency vehicle around the premises.
- v. Sufficient number of fire extinguishers shall be provided near the plant and storage area.
- vi. All necessary precautionary measures shall be taken to avoid any kind of accident during loading, unloading and transportation of biomedical waste.
- vii. The project management shall ensure to comply with all the environment protection measures, risk mitigation measures and safeguards mentioned in the Risk Assessment report.
- viii. Only flame proof electrical fittings shall be provided in the plant premises.
- ix. All the waste storage room shall be marked with colour coding as per the CPCB guidelines time to time.
- x. Proponent shall tie up with nearby health care facility for any emergency cases.
- xi. Personal Protective Equipments (PPEs) shall be provided to workers and its usage shall be ensured and supervised.
- xii. First Aid Box in the unit shall be made readily available in adequate quantity.
- xiii. Training shall be imparted to all the workers on safety and health aspects of biomedical waste handling.
- xiv. Occupational health surveillance of the workers shall be done and its records shall be maintained. Pre-employment and periodical medical examination for all the workers shall be undertaken as per the Factories Act & Rules.

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- xv. Transportation of biomedical waste shall be done as per the provisions of the Motor Vehicle Act & Rules.
- xvi. The company shall implement all preventive and mitigation measures suggested in the Risk Assessment Report.

#### H. NOISE:

- i. The overall noise level in and around the plant area shall be kept well within the standards by providing noise control measures including engineering controls like acoustic insulation hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise level shall conform to the standards prescribed under The Environment (Protection) Act, 1986 & Rules.

#### I. GREEN BELT AND OTHER PLANTATION:


- i. The unit shall develop green belt within premises as per the CPCB guidelines. However, if the adequate land is not available within the premises, the unit shall take up adequate plantation on road sides and suitable open areas in JIDC estate or any other open areas in consultation with the JIDC / JSPCB and submit an action plan of plantation for next three years to the JSPCB.
- ii. Drip irrigation / low-volume, low-angle sprinkler system shall be used for the green belt development within the premises.

#### J. OTHER CONDITIONS:

- i. Rain water recharging of surface as well as rooftop runoff shall be undertaken as per the guidelines / parameter of the State Ground Water Board / Central Ground Water Board and the same water shall be used for the various activities of the project to conserve fresh water as well as to recharge ground water. Before recharging the surface run off, pre-treatment must be done to remove suspended matter.
- ii. The unit shall join and participate financially and technically for any common environmental facility / infrastructure as and when the same is taken up either by the Industrial Association or JIDC or JSPCB or any such authority created for this purpose by the Govt. / JIDC.
- iii. The area earmarked as green area shall be used only for plantation and shall not be altered for any other purpose.
- iv. All the commitments / undertakings given to the SEAC during the appraisal process for the purpose of environmental protection and management shall be strictly adhered to .
- v. The project proponent shall also comply with any additional condition that may be imposed by the SEAC or the SEIM or any other competent authority for the purpose for the environmental protection and management.

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- vi. In the event of failure of any pollution control system adopted by the unit, the unit shall be safely closed down and shall not be restarted until the desired efficiency of the control equipment has been achieved.
- vii. The project authorities must strictly adhere to the stipulations made by the Jharkhand Pollution Control Board (JSPCB), State Government and any statutory authority.
- viii. During biomedical waste unloading there shall be no spillages and garland drain shall be constructed to avoid mixing of accidental spillages with domestic waste water or storm water.
- ix. Pucca flooring impervious layer shall be provided in the work areas, biomedical waste storage areas and chemical handling areas to minimize soil contamination.
- x. No further expansion or modifications in the plant likely to cause environmental impacts shall be carried out without obtaining prior Environment Clearance from the concerned authority.
- xi. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous & other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.
- xii. The project proponent shall comply all the conditions mentioned in "The Companies (Corporate Social Responsibility Policy) Rules, 2014" and its amendments from time to time in a letter and spirit.
- xiii. The project management shall ensure that unit complies with all the environment protection measures, risk mitigation measures and safeguards recommended in the EMP report and Risk Assessment study report as well as proposed by project proponent.
- xiv. The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as well as JSPCB along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.
- xv. The applicant shall inform the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the JSPCB and may also be seen at the Website of SEIAA/SEAC/JSPCB. This shall be advertised within seven days from the date of the clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in the local / hindi language and the other in English. A copy each of the same shall be forwarded to the concerned Regional Office of the Ministry.
- xvi. It shall be mandatory for the project management to submit half-yearly compliance report in respect of the stipulated environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned, on 1<sup>st</sup> June and 1<sup>st</sup> December of each calendar year. The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as well as JSPCB.

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- xvii. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xviii. The project authorities shall also adhere to the stipulations made by the Jharkhand State Pollution Control Board.
- xix. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory.
- xx. The company in a time bound manner shall implement these conditions. The SEIAA reserves the right to stipulate additional conditions, if the same is found necessary.
- xxi. The project authorities shall inform the JSPCB, Regional Office of MoEF and SEIAA about the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- xxii. It shall be mandatory for the project management to submit six (06) monthly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard copies and soft copies to the regulatory authority concerned Regional Office of MoEF & CC at Ranchi and Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi / SEIAA / CPCB.
- xxiii. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xxiv. The SEIAA, Jharkhand or any other competent Authority may alter modify the above conditions or stipulate any further condition in the interest of Environment Protection.
- xxv. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- xxvi. The Prescribed EC is valid as per Notification no. S.O. 1807(E) dated 12.04.2022 of MoEF&CC, Govt. of India.



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