MINUTES OF THE 79TH MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC), JHARKHAND HELD ON 26TH & 27TH SEPTEMBER, 2019

The 79th meeting of State Level Expert Appraisal Committee (SEAC), Jharkhand was held on 26th & 27th September, 2019 under the Chairmanship of Sh. K.P. Bhawsinka in the Conference Room at SEAC, Ranchi.

The following members were present:

1.	Sri K.P. Bhawsinka	- Chairman
2.	Dr. B.K. Tewary	- Member
3.	Dr. R. N. Singh	- Member
<u>4.</u>	Sri Y.K. Singh	- Member
5.	Sri S.P. Srivastava	- Member
6.	Dr. V.P. Sinha	- Member
7.	M.S. Bhagwat	- Member
8.	Sri U.P. Singh	- Member
9.	Sri Om Prakash	- Member Secretary

Dr. R. V. Singh, Member, SEAC could not attend the meeting due to personal reason.

SEIAA forwarded various projects to the SEAC for the technical appraisal after the last SEAC meeting held on 18th 19th & 20th September, 2019. These projects have been put up for discussions. Besides, these Projects, wherein PP's were asked to provide requisite informations / clarifications in SEAC earlier meeting, 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 & 2 : September 26 & 27, 2019 [Thursday & Friday]

Consideration of Proposals

i. City Centre Project of M/s Forum Infrastructure Pvt Ltd at Vill: Asangi, Adityapur Dist. - Saraikela Kharsawan.

Proposed project is development of a City Centre at Adityapur over a vacant land having total land area of 87,849 sq.m (21.7 Acres) in Adityapur Industrial Area (Phase - VII). The land is given by Adityapur Industrial Area Development Authority (AIADA). Proposed City Centre will be developed in phases. At present, out of 21.7 Acres of land area, 9.5 acres, i.e 38,464.83 sq.m will be developed in Phase – I. Rest area will be developed in future. Phase I comprises of two office tower, one hotel tower, one hospital tower, one specialty ward tower and one retail tower & multiplex and services. Total built up area of Phase I development will be 1,12,004.92 sq.m. Project site is abutted by Adityapur – Kandra Road (Tata – Kandra Road), which is a 64.0 M (240 ft) wide road. Height of the proposed buildings is 34.50 M (Max.) from E.G.L.

Chronology of the project:

1. Application to EAC, MoEF 03.07.2012 Invitation from EAC, MoEF for 22.06.2012	S. No.	Chronology of Events	Date of Submission	Feedback by MoEF / SEIAA	Date of Feedback
		Application to EAC, MoEF on 30.03.2012 & subsequently		Invitation from EAC, MoEF for Technical Presentation	22.06.2012

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	on 03. 07.2012			ł .
2.	Deliberation of Technical Presentation by PP	10.07.2012	Observation by EAC, MoEF based on the Technical Presentation	Subsequent MoM by MoEF
3.	Submission of Reply by PP of MoEF observation	09.10.2012	Further Invitation from EAC, MoEF for Technical Presentation	09.11.2012
4.	Deliberation of Technical Presentation by PP	09.11.2012	Recommendation by EAC, MoEF for Environmental Clearance	Subsequent MoM by MoEF
5.	MoEF Recommendation forwarded to Jharkhand SEIAA	22.08.2013	Invitation from SEAC Jharkhand for Technical Presentation	07.09.2013
6.	Deliberation of Technical Presentation by PP to SEIAA & SEAC, Jharkhand	24.09.2013	Observation by SEIAA & SEAC based on the Technical Presentation	03.10.2013
7.	Submission of Reply by PP against SEIAA observation	10.10.2013	Observation made by SEAC Jharkhand based on submitted replies	19.11.2013
8.	Deliberation of Technical Presentation by PP to SEIAA & SEAC, Jharkhand	27.03.2018	Observations made by SEAC Jharkhand against Technical Presentation	27.03.2018
9.	Deliberation of Technical Presentation again by PP to SEIAA & SEAC, Jharkhand	23.04.2018	Observations made by SEAC Jharkhand against Technical Presentation	Subsequent MoM by SEAC
10.	Deliberation of Technical Presentation by PP to SEIAA & SEAC, Jharkhand	09.01.2019	Observations made by SEAC Jharkhand against Technical Presentation	Subsequent MoM by SEAC
11.	Deliberation of Technical Presentation by PP to SEIAA & SEAC, Jharkhand	13.08.2019	Observations made by SEAC Jharkhand against Technical Presentation	Subsequent MoM by SEAC

Location of Plot:

PLOT NO.-A-1,A-2,A-3,A-4,A-5,B-1,B-2,B-3,B4,B-5,C-2(P),C-3,C-4,C-5,C-6,C-7,C-8,C-9,NS1,NS-3(P),NS-9,NS-10,NS-11,NS-12,NS-13,NS14,NS-15(P),NS-61,NS-62(P),NS-63,NS-64 (Vill : Asangi, Adityapur, Dist. - Saraikela Kharsawan)

Connectivity of project site:

The proposed City Centre Site is located in Adityapur, Jharkhand State. It is situated about 7Km away from Tatanagar Railway Station on South-eastern Railway. The site could be approached by Tata-Kandra Road from TATA Nagar to Paban Dharam Kanta (Weigh Bridge) crossing past the Bistupur Bus stop. TATA – Kandra road leads to NH-33, 12 km apart from the project site. Nearest railway line TATA – CHANDIL is located at 1.0 km apart from project site.

Land Area Statement:

Area of Land
Land area under Phase - I
Width of Abutting Road
Permissible Ground Coverage
Permissible F.A.R.
Permissible Built Up Area
Proposed Ground Coverage

= 87,849 sq.m (21.7 acres)

= 38,456 sq.m (9.5 acres)

= 64.00 m (TATA- KANDRA Road)

= 19,228 Sq.m (50.00% of Plot Area of Phase I)

= 2.5

= 96140 sq.m + F.A.R. Allowance Area

= 17,729.84 Sq.m (46.00% of Plot Area of Phase - I)

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Proposed Total Built Up Area Proposed Total F.A.R. Area

Proposed F.A.R.

Proposed Height of Building

= 1,12,004.92 Sq.m= 88,249.81 sq.m

= 2.295

= 38.30 m (Max.) from F.G.L.

Land use Distribution:

Building Coverage Open Parking Area

Internal Roads & Pavements Landscaped Green Area

: 46.00% of Land Area (17,729.84 sq.m) : 6.21% of Land Area (2,333.7 sq.m) : 27.39% of Land Area (10,533.59 sq.m)

: 20.40% of Land Area (7,858.87 sq.m)

Building Profile

Hospital Tower

Proposed Built Up Area Proposed Ground Coverage

Height of Building

No. of Beds

= 16991.81 sq.m= 3041.39 sq.m= 32.7 m from F.G.L.

= 276

Hospital Tower (Specialty Ward)

Proposed Built Up Area Proposed Ground Coverage

Height of Building

No. of Beds

= 10,768.33 sq.m= 1,187.85 sq.m

= 33.90m from F.G.L.

= 106

Office Tower - 1

Proposed Built Up Area Proposed Ground Coverage

Height of Building

= 13,201.63 sq.m= 1,657.70 sg.m

= 34.50m from F.G.L.

Office Tower - 2

Proposed Built Up Area Proposed Ground Coverage

Height of Building

= 12,869.46 sq.m

= 1,731.05 sg.m

= 34.50m from F.G.L.

Hotel Tower

Proposed Built Up Area Proposed Ground Coverage

Height of Building

No. of Rooms

= 12,507.05 sq.m

= 1,465.15 sq.m

= 34.50m from F.G.L.

= 105

Retail Block

Proposed Built Up Area Proposed Ground Coverage

Height of Building

= 22,457.93 sq.m

= 7,159.47 sq.m

= 34.50m from F.G.L.

Multiplex Block

Proposed Built Up Area Proposed Ground Coverage

Height of Building

= 3,061.10 sq.m= 7,159.47 sq.m

= 34.50m from F.G.L.

Multilevel Car Parking Area

Proposed Built Up Area Proposed Ground Coverage Height of Building

= 20,147.61 sq.m= 1,731.05 sq.m

= 34.50 m from F.G.L.

Occupancy Rattern:

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Occupancy Type	No. of Units	Person/Unit Persons	(Total)
Hospital	276 Beds	1	276
Hospital – Specialty Ward	106 Beds	1	106
Hospital Employee	-	-	764
Hospital Visitors		***************************************	1000
Hotel Boarders	105	2	210
Hotel Employee	105	2	210
Restaurant Capacity	100 seat	•	100 (Seat)
Café Shop	70 seat	-	70 (Seat)
Banquet	······································	<u>u</u>	150
Conference Room	\$20000 A	-	90
Visitors	105	1	105
Office Employee	48	-	2504
Office Visitors	**	-	250
Retail Area Employee			5149
Retail Area Visitor	-	-	1287
Multiplex Employee	4 Theatres	10	40
Multiplex Spectator	4 Theatres	250 seat/Theatre	3000
Service Staff	**	-	200
Total Occupants			15341

Power Requirement, Source of Supply and D.G. Back Up Details:

Daily power requirement for the proposed CITY CENTRE is preliminarily assessed as around 9,300 kW. Breakup of Power Requirement is as follows:

Hospital Block - 1000 kW

Specialty Block - 800 kW

Office Tower -1&2-2600 kW

Hotel Tower, Retail Area & Multiplex- 4000 kW.

Multi Level Car Parking - 500 kW

External Area Illumination – 400 kW

Jharkhand State Electricity Board and JUSCO will be the supply agency. 100% power backup will be provided by installing 6 X 1500 kVA & 2X 1000 kVA D.G. Sets.

Water Requirement:

Daily Water Demand = 1008 KLD, within which domestic demand is 631 KLD Bore well supply, Treated Wastewater from STP and rooftop rainwater

Parking Requirement:

Statutory requirement of Car Parking = 331 No.

Car Parking Provided = 1010 Nos. (Covered = 900, Open = 110)

Detailed Car Parking Calculation is enclosed in Annexure 5.3

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Earlier the proposal was presented in SEAC on 13-14.08.2019 in which requisite documents /certificate were sought are under -

- i. The DFO, Saraikela Division vide letter no. 1129 dated 29.05.2019, apprehends that the project may disturb the adjoining forest area.
- The Committee suggested the PP to submit an "Undertaking" that a Green Buffer zone of ii. 10 m width be raised towards the notified forest boundary, by planting trees as per Forest Deptt. specification before the commencement of the project activities. Beside, dust suppressing screens be erected all along the forest boundary during construction period. This "undertaking" comprising mitigation plan be to the satisfaction of DFO concerned.
- PP was asked to submit certificate regarding distance of National Park / Sanctuary / Bioiii. Diversity etc from concerned DFO, Wildlife and permission of surface water / ground water from the respective concerned Authority.

In the present meeting, the PP has presented and responder to the above mentioned quarries. The PP has proposed a Buffer zone of more than 37 m (comprising AIADA road + drain 18 m, internal road & green belt 19 m towards the boundary of forest) and has demarcated in a map showing the boundary of the forest and the City Centre. The required "Undertaking" has been submitted also which ascertain that this will act as green buffer zone between this building project and the forest area.

DCF and Field Director, Elephant Project, Jamshedpur vide letter no. 924, dt. 05.09.2019 certified the proposed project site is not within 10 km from the National Park / Wildlife Sanctuary / ESZ.

DFO, Saraikela Division vide letter no. 2374, dated 27.11.18 certified that the distance of notified forest is 0 (zero) m from proposed project site.

Though this project comes under infrastructure category 8 (a), wherein general condition is not required as per the EIA notification 2006, SEAC deliberated that there is a need of Green Buffer zone to be created for better conservation of forest & environment of the area.

The CO, Gamharia vide memo no. 872, dated 16.07.19 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in the R.S. Khatiyan.

Sri Y.K. Singh, Member, SEAC has noted that "the concerned DFO had previously report that this project may cause damage to the adjoining plantations. Now he has again confirmed this. As forest plantation are much more vulnerable to damage by neighbouring colonies the concern of the DFO is valid and the proposal is not fit for consideration otherwise in case of any subsequent damage the loss should be recoverable from the persons responsible for the proposal"

The committee decided to recommend for issuance of EC with the provisions of the following specific conditions:

- i. The PP will commence the construction work subsequent to completion of raising of Green belt of 10 m to the satisfaction of local forest officer.
- The plantation will be raised as per Forest Deptt. specification & guidelines and a certificate ii. of Green belt raised, issued by the forest deptt. be submitted for confirmation.
- The compliance report should mention the status of survival of plants & measures iii. undertaken in this regard.

The dust suppressing screen be erected all along the forest boundary during construction iv. UP BUT Shah period to avert deleterious impact on nearby forest & environment.

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- v. All conditions mentioned by MoEF, SEIAA & SEAC during various presentations need to be invariably to be complied with subject to due diligence of all prevailing statuary and other rules & regulations in existence.
- vi. Any breach of the EC conditions may lead to cancellation of EC granted.

Based on the presentation made and information provided, the Committee decided that the proposal for City Centre Project of M/s Forum Infrastructure Pvt Ltd at Vill: Asangi, Adityapur Dist. - Saraikela Kharsawan be conditionally recommended for consideration of SEIAA for grant of EC. The other various conditions for grant of EC is enclosed herewith as Annexure - I.

ii. Expansion Project of M/s Balmukund Sponge & Iron (P) Ltd., Vill. : Manjhiladih, P.O. : Gadisrirampur, Dist. : Giridih

(Proposal No.: SIA/JH/IND/39010/2019)

As per EIA notification 2006 the expansion proposal is coming under category '3(a)' and requires environmental clearance under category B1 i.e. from State Environment Impact Assessment Authority, Jharkhand.

BALMUKUND SPONGE & IRON PVT.LTD.is a company incorporated on 14th July 1999 having its registered office at 603, Shanti Kunj Apartment, Chajjubagh, Patna –1. The Company is promoted by Sri Nawal Kumar Kanodia. The existing manufacturing facility MBF (1x110 TPD), Induction Furnaces (4x7 MT & 1x15 MT = 350 TPD) with CCM, Iron Ore Beneficiation Plant (94000 TPA Throughput) & one ReRolling Mill (50 TPD) of the company is located at Manjhiladih, Chatro Tundi Road, P.O. Gadisrirampur, Dist. Giridih (Jharkhand) which is ideally located in terms of raw material, power, skilled man power and logistics.

The Company has obtained Consent to Establish (CTE) vide letter No. N-356 dated 13.06.2005 for establishment of Induction Furnaces of 60 TPD and Rolling Mill of 50 TPD. The Company has also obtained Environmental Clearance from MoEF & CC, Govt. of India vide F. No. J-11011/870/2008-IA II (I) Dt: 28th Jul.' 2010. Consent to Establish (CTE) was granted by JSPCB vide Memo No. 3576 Dt: 18.07.2008 for MBF (1x110 TPD, 39000 TPA) & vide letter No. EC/SEIAA/2013-14/297/2014/1525 Dt: 25.08.2015 for Induction Furnaces (2x7 MT & 1x15 MT = 290 TPD, 102660 TPA) with CCM, Iron Ore Beneficiation Plant (94000 TPA Throughput) from SEIAA, Jharkhand & CTE vide letter No.B4109 dt.16.10.2015 from JSPCB, Jharkhand has been obtained.

The Company has obtained Consent to Operate vide letter under Ref. No. JSPCB/HO/RNC/CTO-2335595/2018/1314 dated 13.08.2018 valid till 30.06.2020 for all the units referred herein from Jharkhand State Pollution Control Board.

The proposed manufacturing facilities of M.S. Billet – 150168 TPA, TMT Rod/M.S. Coil – 246926 TPA (After Modernization -M.S. Billet – 274068 TPA, TMT Rod/M.S. Coil – 246926 TPA) & two Induction Slag Grinders having grinding capacity of 47000 TPA segregating 3760 TPA of Iron Metal for the Company will be located at Manjhiladih, Chatro Tundi Road, P.O. Gadisrirampur, Dist. Giridih (Jharkhand) within the existing industrial premises.

The proposed enhancement by modernization of existing facility will take place in existing premise at Manjhiladih P.O. Gadisrirampur, Dist. Giridih in the State of Jharkhand on Survey Total land of 26.354 Acres at mouza Manjhiladih, Distt. Giridih out of which 4.9375 Acre land in Thana No.267 Khata no.5,20,30,33,38,39 & 79 Plot No. 942, 943, 944, 945, 946, 947, 955, 958, 965, 966, 967,

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968, 973, 982, 984, 985, 987 & 988. The site lies at latitude $24^{\circ}7'9.36"N$ and longitude $86^{\circ}21'15.62"E$. The project is located in Survey of India Topo Sheet no. 72L/8.

RAW MATERIAL REQUIRED:

Facilities	Raw Material	Existing Quantity in TPA	Additional/ proposed Quantity in TPA	Total quantity required after expansion
M.S. Billet	Sponge Iron	97400	115500	212900
	Pig Iron	38045	46110	84155
	Iron & Steel Scrap	8445	9680	18125
	Silico Manganese	6195	7508	13703
TMT Rod/Bar	M.S. Billet	16550 (proposed dismantle)	274350	274350
Ind. Slag Grinder	Induction Furnace Slag	0	47000	47000

Proposed Scenario of Expansion project:

Sl. No.	Types of unit	Existing installed capacity	Proposed capacity (modernization / expansion)	Total capacity after modernization / expansion	Facilities
1.	Ind. Furnace & CCM (M.S. Billet)	123900 TPA (1x 15T + 4x7T)	150168 TPA (4x7T replaced with 4 x15T)	274068 TPA (5 x 15T)	Ind. Furnace & CCM (M.S. Billet)
2.	Re-Rolling Mill (M.S. Coil/TMT Bar	16550 TPA (1x 50 TPD)	246926 TPA (Existing 1 x50 TPD replaced with 1x371 TPD + 1x375 TPD)	246926 TPA (1x371 TPD + 1x375 TPD)	Re-Rolling Mill (M.S. Coil/TMT Bar
3.	Induction Slag Grinders(Iron Metal)	0 TPA	47000TPA	47000 TPA	Induction Slag Grinders(Iron Metal)
4.	MBF (Pig Iron)	39000 TPA	No Expansion	39000 TPA	MBF (Pig Iron)
5.	Iron Ore Beneficiation	94000 TPA	No Expansion	94000 TPA	Iron Ore Beneficiation

Existing status of EC:

No. of EC Granted/ Proposed	Manufacturing Facilities	Product	Capacity	EC grant details
M.S. Billet (Old)	Induction Furnace	M.S. Billet	21240 TPA	

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1 st EC	Mini Blast	Pig iron	39000TPA	F. No. J-
(Granted)	Furnace		(110TPD)	11011/870/2008-IA II
EAC, New Delhi				(I) on dated 28th Jul
				2010
2 nd EC	Induction	M S Billet	102660TPA	EC/SEIAA/2013-
(Granted	Furnace(SMS		(290TPD)	14/297/2014/1525 on
SEIAA,	with CCM)			dated 25.08.2015
Jharkhand)				
	Iron ore	Iron ore	94000TPA	
	beneficiation	beneficiation	(266TPD)	
	plant			
3 rd EC	Expansion of	M.S. Billet	274068 TPA	
(Proposed)	Induction Furnace			
	Rolling Mill	M.S.Coil/TMT	246926 TPA	
		Bar		
	Slag Crusher	-	4700 0TPA	
	-			

All the materials required for construction and operation of the plant will be transported through road. State Highway is at a distance of nearly 0.75 Km from the site.

Power requirement for the existing unit will be 17.0 MV is met from Damodar Valley Corporation and for the proposed expansion 6.0 MVA power will be required for existing & proposed plants that shall be met from Damodar Valley Corporation.

Total water requirement will be 60 KLD out of which 20 KLD will be make up water and will be sourced from Rain water harvesting pond and bore well. Waste water generated from the cooling tower blow down will be settled in the settling tank and recirculated in the process. So the plant will operate with zero effluent discharge technology. Domestic waste water will be treated through soak pit via septic tank.

The cost of the project, estimated at Rs 41.55 Crore,

DFO, Wildlife Hazaribagh vide letter no. 1575, dated 06.08.19 has certified that the Parashnath Wildlife Sanctuary is located at a distance 23105 m from project site and not within 10 km from National Park, Bio-Diversity & Sanctuary and proposed project is not situated in any ESZ.

The DFO, Giridih East Division vide letter no. 2411, dated 17.08.19 is misleading. It is not clear as to whether the project site is situated beyond 250 m of nearest notified forest or not.

The CO, Giridih vide memo no. 1880, dated 26.07.19 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S Khatiyan & Register II.

PP has presented the compliance of previous EC / CTO / CTE. In expansion proposal no change in project area is envisaged. The raw material requirement and material balance of the proposed expansion has been presented also. The requirement of water & power, solid waste & disposal methodology, stack emission & online monitoring system were presented.

The committee decided to recommend for issuance of ToR with the provisions of the following specific conditions:

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- i. Setting of fixed sprinkler in different dusty position should be authenticate with photographs.
- ii. Material balance of rolling mill of all sections.
- iii. Status of existing green belt area.
- iv. Enhancement of CSR cost.
- v. Source of water requirement and permission from competent authority & its impact on ground / surface water.
- vi. The mass balance for each section of the proposed modernization / expansion has to be provided as per MoEF&CC guidelines viz. input raw materials and resulting products solid waste and gaseous wastes.
- vii. The firm quantitative linkages for the disposal of solid wastes have to be provided to ascertain the complete recycling of solid waste resulting during production stage as per guidelines of MoEF&CC.
- viii. PP to provide plant layout & drawings of present & revised billet transport process indicating facilities / list of equipment to charge hot billets from CCM.
 - ix. Details of process including hot charging between CCM & heating furnace before & after expansion.
 - x. Computation of Material, power & fuel balance with potential saving from the proposed switch over of the technology.
 - xi. Details of technology / energy option as per best manufacturing manufacturing practices prevailing in country.
- xii. Provide transport distance between CCM and rerolling mills indicating horizontal, vertical and lateral distance.
- xiii. Average residence time of hot billet, Casting speed to achieve targeted thorough put of production mix.
- xiv. Action to be taken to mitigate heat stress impact on people's health and productivity in SSRM.
- xv. Air pollution changes after establishment & at present.
- xvi. Maintenance Management system in practice in unit & facilities available with the unit.
- xvii. Energy and power intensity of the unit.

Based on the information contained in the documents submitted and the presentation made before the State Level Expert Appraisal Committee (SEAC) during its meeting held during 26th and 27th September, 2019 the Committee recommends issuing of TORs for consideration of SEIAA for undertaking detailed EIA / EMP study. The ToR points are enclosed as **Annexure - II.**

iii. Common Bio-Medical Waste Treatment, Storage and Disposal Facility (CBMWTSDF) of M/s Nilawars Watergrace Waste Management Pvt. Ltd., Vill: Pochra, Tehsil: Mandu, Dist.: Ramgarh.

(Proposal No. : SIA/JH/MIS/30851/2018)

All the outset SEAC finds that the required documents have not been provided to all members in either soft & hard copy. PP also admitted that he has received the information 2 days back only.

As such the PP requested to defer the case for decisions to next meeting for appraisal. After disputing hard copies to all the members present, PP requested to permit the presentation, which was permitted.

This will be taken up in the next meeting.

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iv. Misraul Stone Mine of M/s Maa Suruchi Stone Works, Vill.: Misraul, P.O.: Tapej, Dist.: Chatra (1.45 Ha).

(Proposal No.: SIA/JH/MIN/42058/2019)

This is a Stone Mining Project with an area of 1.45 Ha [Khata no. 01, 12, 26, 33, Plot No.- 250 (P), 245, 214 (P), 243]. The latitude and longitude of the project site is 24° 12' 28.89" N to 24° 12' 23.48" N and 84° 55'58.31" E to 84° 55' 51.62" E. The nearest railway station is Katkamasandi at a distance of 29 km and nearest airport is Ranchi at a distance of 105 km. Total water requirement is 7.24 KLD (Drinking & domestic: 0.81 KLD, Afforestation / Green belt: 0.64 KLD & Dust Suppression: 5.79 KLD). The drinking & domestic water need will be fulfilled by taking water from nearby village like Misraul tube well. As soon as mine void is formed water for green belt and dust suppression will be met from water accumulated in mine void. For the purpose of dust suppression & afforestation water of nearby ponds and rain water harvesting will be used.

The details of mine capacity as per Approved Mining Plan are

Proved Mineable Reserve

6,30,315 tonne

Year-wise Production as per Approved Mining Plan Report for five years is as follows

 1^{st} Year : 1,80,090 tonne 2^{nd} Year : 1,38,510 tonne 3^{rd} Year : 1,16,154 tonne 4^{th} Year : 83,214 tonne 5^{th} Year : 66,042 tonne

The daily production as per Form I is 600 tonne.

The indicated project cost is Rs 33.00 Lakh and a provision of Rs 5.89 Lakh has been indicated for Environment management.

DFO, Wildlife Hazaribagh vide letter no. 955, dated 21.05.19 certified that the Protected Area is 16520 m from project site and not within 10 km from National Park, Bio-Diversity & Sanctuary and proposed project is not situated in any ESZ.

DFO, Chatra South Division vide letter no. 1517, dated 28.05.19 certified that the distance of nearest forest is 290 m from proposed project site and proposed site is not under No Mining Zone.

The CO, Chatra vide letter no. 473, dated 25.07.19 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S Khatiyan & Register II.

DMO, Chatra vide memo no. 1197, dated 24.08.19 certified that altogether total mining in the area is less than 5 ha in the radius of 500 m.

The DC, Chatra (letter no. 1191, dated 21.08.19) requesting Member Secretary, SEAC to incorporate the details of the project in DSR.

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 Misraul Stone Mine of M/s Maa Suruchi Stone Works, Vill.: Misraul, P.O.: Tapej, Dist.: Chatra (1.45 Ha) be recommended for consideration of SEIAA for

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grant of EC, in the light of DC, Chatra aforesaid letter dated 21.08.19.. The various conditions for grant of EC is enclosed as Annexure - III.

Chatania Stone Mine of M/s Chatania Mines, Vill. : Chatania, P.O. : Bashisthnagar, Dist. : ٧. Chatra (2.83 Ha).

(Proposal No.: SIA/JH/MIN/42378/2019)

This is a Stone Mining Project with an area of 2.83 Ha [Khata no. 01, Plot No.- 33 (P)]. The latitude and longitude of the project site is 24° 19' 33.76" N to 24° 19' 28.64" N and 84° 45' 40.86" E to 84° 45' 32.40" E. The nearest railway station is Padma at a distance of 63 km and nearest airport is Ranchi at a distance of 126 km. Total water requirement is 10.08 KLD (Drinking & domestic = 1.08 KLD, Afforestation / Green belt = 3.08 KLD, Dust Suppression = 5.92 KLD). The drinking & domestic water need will be fulfilled by taking water from nearby village like Misraul tube well. As soon as mine void is formed water for green belt and dust suppression will be met from water accumulated in mine void. For the purpose of dust suppression & afforestation water of nearby ponds and rain water harvesting will be used.

The details of mine capacity as per Approved Mining Plan are

Proved Mineable Reserve

27,87,939 tonne

Year-wise Production as per Approved Mining Plan Report for five years is as follows

1st Year 2nd Year

2,38,966.2 tonne

2,38,966.2 tonne 3rd Year 2,35,256 tonne

4th Year 5th Year

2,38,302 tonne

2,43,000 tonne

The daily production as per Form-I is 810 tonne.

The indicated project cost is Rs 34 Lakh, a provision of Rs 5.89 Lakh has been indicated for Environment management and CER is 4.50 Lakh.

DFO, Wildlife Hazaribagh vide letter no. 956, dated 21.05.19 certified that the Protected Area is 16100 m from project site and not within 10 km from National Park, Bio-Diversity & Sanctuary and proposed project is not situated in any ESZ.

DFO, Chatra North Division vide letter no. 1516, dated 31.05.19 certified that the distance of notified forest is 280 m from proposed project site.

The CO, Chatra vide letter no. 581, dated 22.08.19 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S Khatiyan & Register II.

DMO, Chatra vide memo no. 1220, dated 04.09.19 certified that no other lease is exists within 500 m radius from proposed project site.

The project is mentioned in District Survey Report (DSR) of Chatra District.

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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 Chatania Stone Mine of M/s Chatania Mines, Vill. : Chatania, P.O.: Bashisthnagar, Dist.: Chatra (2.83 Ha) be recommended for consideration of SEIAA for U BUT HE grant of EC. The various conditions for grant of EC is enclosed as Annexure - III.

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vi. Chuwa Stone Deposit of M/s Jai Baba Pashupatinath Stone (Prop : Sri Amit Kr. Gupta), Vill. : Chuwa, Thana : Rajmahal, Dist. : Sahibganj (4.45 Ha).

(Proposal No. : SIA/JH/MIN/41626/2019)

This is a Stone Mining Project with an area of 4.45 Ha [J.B. no. 08, 30, 31, 22, Plot No.- 15, 16, 17, 18 (P)]. The latitude and longitude of the project site is 25° 12' 50.97" N to 25° 13' 02.09" N and 87° 34' 26.31" E to 87° 34' 33.06" E. The nearest railway station is Karamtola at a distance of 4.92 km and nearest airport is Kolkata at a distance of 298 km. Total water requirement is 17 KLPD. Source of water is nearby villages (dug wells).

The details of mine capacity as per Approved Mining Plan are

Proved Mineable Reserve

26,48,268 tonne

Probable Mineable Reserve

48,885 tonne

Year-wise Production as per Approved Mining Plan Report for five years is as follows

 1^{st} Year : 75,090 tonne 2^{nd} Year : 75,027 tonne 3^{rd} Year : 75,058 tonne 4^{th} Year : 75,039 tonne 5^{th} Year : 75,090 tonne

The daily production as per Form-I is 250 tonne.

The indicated project cost is Rs 40.00 Lakh and a provision of Rs 3.56 Lakh has been indicated for Environment management.

DFO, Wildlife Hazaribagh vide letter no. 1596, dated 09.08.19 certified that the Udhwa Lake Bird Sanctuary is 31305 m from project site and not within 10 km from National Park, Bio-Diversity & Sanctuary and proposed project is not situated in any ESZ.

DFO, Sahebganj Division vide memo no. 1860, dated 26.09.17 certified that the distance of notified forest is 550 m from proposed project site.

The CO, Mandro vide memo no. 771, dated 10.08.19 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S Khatiyan & Register II.

DMO, Sahebganj vide memo no. 241, dated 25.01.18 certified that no other lease is exists within 500 m radius from proposed project site.

The project is mentioned in District Survey Report (DSR) of Sahebganj District.

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 Chuwa Stone Deposit of M/s Jai Baba Pashupatinath Stone (Prop: Sri Amit Kr. Gupta), Vill.: Chuwa, Thana: Rajmahal, Dist.: Sahibganj (4.45 Ha) be recommended for consideration of SEIAA for grant of EC. The various conditions for grant of EC is enclosed as Annexure - III.

vii. Jyoti Pahari Open Cast Kynaite Project of M/s JSMDC Ltd, Vill: Jyoti Pahari, Tehsil: Ghatsila, Dist.: Singhbhum East (20.331 Ha).

(Proposal No.: SIA/JH/MIN/25091/2018)

JSMDC Ltd., a Govt. of Jharkhand enterprises operates a number of mining projects in the state. Jyoti Pahari Kyanite mine is one of such mines which is being operated by JSMDC Ltd. producing

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Kyanite suitable for refractory Industries. Prior to creation of Jharkhand State, the mine was owned by Bihar State Mineral Development Corporation Ltd. Original lease was in favor of BSMDC Ltd, expired in 2004. Lease was granted for period of 20 years which became effective from the date of registration of lease, 19.08.1984. Application for renewal of lease for further period of 20 years has been filed in the office of DMO on 14.08.2003, vide their receipt no. 678 dated 14.08.2003, mining started on 10.10.1985, the mining operation was stopped in 2009.

This is category B project & SEIAA, Jharkhand issued ToR for Jyoti-Pahari Kyanite Mine on 01.05.2015. JSMDC submitted draft EIA / EMP to JSPCB. JSPCB conducted Public Hearing & final EIA /EMP incorporating minutes of Public Hearing was submitted to SEIAA. Public Hearing was conducted on 03.12.2016.

However, in the meantime MoEF&CC issued a notification in respect of dealing with violation cases. Due to increase in production from 38342 T in 1991-92 to 54472.98 T in 2008-09, the present project come under violation case.

M/s Jharkhand State Mining Development Corp., a Govt. of Jharkhand undertaking is the proponent of Jyoti Pahari Kyanite Mine. Lease area is 20.331 Ha. The mine is located between Plot no. 1 (P), 69, 70, 148, 175, 179, 187, 191, 196, 220, 222, 163, 155, 115, 87, 89, 76, 79, 75 & 74, Latitude 22⁰ 21 to 22⁰ 21' 30" N and Longitude 86⁰ 39 to 86⁰ 29' 30" E in East Singhbhum District.

The proposed capacity is 10962 TPA. The project will produce a maximum of 4419 tonnes per annum of Kyanite by opencast method of mining. Average production rate will be 2698 T/Year.

The PP has applied for violation ToR for the said project. Plot nos. of project site as mentioned in online Form-I submitted by PP, DFO, Jamshedpur Division certificate (letter no. 2767, dated 27.08.2019), DFO, Dalma Elephant Project (letter no. 912, dated 04.09.19) and CO, Bahragora (letter no. 537, dated 24.09.19) do not tally. The PP subsequently submitted revised Form-I on 26.09.19. Wherein, no plot nos. of the project site has been mentioned. This creates ambiguity that has to be clarified & rectified.

The project authorities along with their consultant M/S Crystal Consultants, Ranchi gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of Reference for preparation of EIA / EMP report.

The PP has submitted an "Undertaking" that it would submit revised Form-I and DFO & CO certificates mentioning correct plot nos. of project site.

Chairman, SEAC opines that -

SEAC takes serious note of non submission of documents in time. SEAC observation and evaluation of this violation case requires a pre requisition of hard copy of the proposal and related maps. But what to talk about receipt of hard copies, even the soft copies were being poured in individual facilities even till departure of the members.

SEAC, decided to consider this proposal even under this situation considering interest of the state with following directives.

PP/ Consultant needs to assess and submit documents pertaining to fulfilment of following:

- a. Prepare Ecological damage assessment and value the damage made.
- b. Prepare a Natural Resource and community Augmentation Plan.

c. Economic benefits derived before Grant of EC.

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d. Present time bound implementation of Natural Resource and community Augmentation Action . Plan.

*These are additional TOR conditions of violation in addition to evaluation of EIA and accordingly implementation of EMP to be assessed by SEAC after receipt of hard copies of documents and maps and other related information. SEAC members are free to add any further conditions after the documents are received by individual members.

Based on the information contained in the documents submitted and the presentation made before the State Level Expert Appraisal Committee (SEAC) during its meeting held during 26th and 27th September, 2019 the Committee **conditionally** recommends issuing of TORs, subject to submission of revised for Form-I and DFO & CO certificates (mentioning correct plot nos. of project site) directly before SEIAA for consideration of SEIAA for undertaking detailed EIA / EMP study. The ToR points are enclosed as **Annexure - IV**.

viii. Chauparia Stone Mine of M/s Chauparia Stone Mine, Mauza: Chauparia, Thana: Ramgarh (Chainpur), Dist.: Palamau (1.11 Ha).

(Proposal No.: SIA/JH/MIN/41589/2019)

This is a Stone Mining Project with an area of 1.11 Ha [Khata no. 21, 13, 39 & 07, Plot No.- 1151, 1153, 1154 & 1155]. The latitude and longitude of the project site is 23° 57′ 55.0″ N to 23° 57′ 56.7″ N and 83° 55′ 36.5″ E to 83° 55′ 41.1″ E. The nearest railway station is Daltonganj at a distance of 20 km and the nearest airport is Ranchi at a distance of 170 km . Total water requirement is about 4.56 KLD. Water supply will be met by nearby dugwells and bore wells or by private tankers.

The indicated project cost is Rs 32.21 Lakh and a provision of Rs 2.04 Lakh has been indicated for Environment management.

The details of mine capacity as per Approved Mining Plan are

Proved Mineable Reserve : 8,39,066 tonne

Probable Mineable Reserve : 67.210 tonne

Year-wise Production as per Approved Mining Plan Report for five years is as follows

 1^{st} Year : 89,421 tonne 2^{nd} Year : 90,526 tonne 3^{rd} Year : 90,802 tonne 4^{th} Year : 90,556 tonne 5^{th} Year : 90,584 tonne

The daily production as per Mine Plan is 301 tonne.

Deputy Director, Palamau Tiger Project, Medininagar vide letter no. 1598, dated 11.07.19 certified that the project site is not within 10 km from National Park, Bio-Diversity & Sanctuary and proposed project is not situated in any ESZ.

DFO, Medininagar Division vide letter no. 2338, dated 18.06.18 certified that the distance of notified forest is 350 m from proposed project site.

The CO, Chainpur, Palamau vide letter no. 445, dated 28.06.19 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S Khatiyan & Register II.

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DMO, Palamau vide memo no. 916, dated 03.07.19 certified that no other lease is exists within 500 m radius from proposed project site.

The DC, Palamau (letter no. 1257, dated 27.08.19) requesting Member Secretary, SEAC to incorporate the details of the project in DSR.

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 Chauparia Stone Mine of M/s Chauparia Stone Mine, Mauza: Chauparia, Thana: Ramgarh (Chainpur), Dist.: Palamau (1.11 Ha) be recommended for consideration of SEIAA for grant of EC, in the light of DC, Palamau aforesaid letter dated 27.08.19.. The various conditions for grant of EC is enclosed as Annexure - III.

ix. Affordable Group Housing Project (under PMAY) of M/s National Projects Construction Corporation Ltd., Vill.: Horladih, Dist.: Dhanbad.

(Proposal No.: SIA/JH/MIS/108334/2019)

It needs to mention that the selection of this site for construction of Affordable Group Housing Project (under PMAY) needs revisit of the site selection process along with submission of specific documents.

This area comes in the heart of the Jharia coal field where in long years of unscientific and unplanned coal mining activities (by underground methods) have created large scale land degradation, mine fire, land subsidence and unstable land conditions. Loss of vegetation, thereby, disturbing the ecology of the area. Accordingly, as per, information, a number of areas have been identified as unstable and affected area and as such new building construction activities have been banned by the appropriate authorities. Govt. of India has undertaken the Jharia Rehabilitation & Resettlement programme for shifting the whole populations from these danger areas to safer places by construction of houses in non-coal bearing areas.

Site selection needs a thorough geo-technical appraisal along with a certificate from Director General of Mines Safety as to whether this area is free from above mentioned hazards and is fit for construction of residential figures in such area with environmental deficiencies. After the documents / information is submitted, SEAC will re-examine the case.

X. Salbona Stone Mine of M/s Supreme Stone Mine, Vill. : Salbona, P.S. & Tehsil :Shikari Para, Dist. : Dumka (1.42 Ha).

(Proposal No. : SIA/JH/MIN/41448/2019)

This is a Stone Mining Project with an area of 1.42 Ha [J.B. No. 27, 2, 38, Plot No. 290, 291, 292]. The latitude and longitude of the project site is 24° 10′ 42.8″ N to 24° 10′ 48.2″ N and 87° 34′ 10.2″ E to 87° 34′ 16.8″ E. The nearest railway station is Pinargaria a distance of 8 km and the nearest airport is Ranchi at a distance of 250 km. Total water requirement is about 6 KLD (Drinking & domestic uses: 1 KLD, Dust Suppression: 3 KLD & Green Belt: 2 KLD). The drinking water will be available from nearby village by tractor tank manually by labors at the site.

The indicated project cost is Rs 22.80 Lakh and a provision of Rs 8.00 Lakh has been indicated for Environment management.

The details of mine capacity as per Approved Mining Plan are

Proved Mineable Reserve

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3,01,860 tonne

Probable Mineable Reserve

3915 tonne

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Year-wise Production as per Approved Mining Plan Report for five years is as follows

1st Year 30,588 tonne 2nd Year 30,553 tonne 3rd Year 30,567 tonne 4th Year 30.561 tonne 5th Year 30,584 tonne

The daily production as per Form I is 102 tonne.

DFO, Wildlife Hazaribagh vide letter no. 1641, dated 10.08.19 certified that the Udhwa Lake Bird Sanctuary is 90605 m from project site and not within 10 km from National Park, Bio-Diversity & Sanctuary and proposed project is not situated in any ESZ.

The DFO, Dumka Division vide letter no. 3120, dated 14.09.19 is misleading. It is not clear as to whether the project site is situated beyond 250 m of nearest notified forest or not.

The CO, Shikaripara vide letter no. 137, dated - 31.01.19 has mentioned that the proposed site is not recorded as Jangal Jhari in Khatiyan & Register II.

DMO, Dumka vide memo no. 597, dated 01.06.19 certified that no other lease is exists within 500 m radius from proposed project site.

The project is mentioned in District Survey Report (DSR) of Dumka District.

PP was asked to submit additional requisite documents:

- In the CO report submitted an anomaly has been defected. The CO has counter signed the i. filled up format submitted by the PP with signature. This is erroneous and requires submission of a fresh CO certificate.
- Latitude & Longitude not mentioned in Form-I & Pre-Feasibility Report revised Form-I & ii. Pre-Feasibility Report.
- iii. Enhancement of CSR cost.

Once the requisite documents are submitted to SEAC, it will examine the case.

Damin Bhitha Stone Deposit of Sri Pradeep Kr. Keshari, Vill.: Damin Bhitha, Taluka : хi. Mirzachowki, Dist.: Sahibganj (2.792 Ha).

(Proposal No.: SIA/JH/MIN/40846/2019)

This is a Stone Mining Project with an area of 2.792 Ha [Plot No.- 613 (P), 615 (P), 621 (P)]. The latitude and longitude of the project site is 25° 14' 01.5646" N to 25° 14' 08.2070" N and 87° 32' 38.0652" E to 87° 32' 47.3410" E. The nearest railway station is Karamtola at a distance of 2.5 km and the nearest highway NH-80 is 2.5 km and nearest airport is Malda at a distance of 63 km. Total water requirement is 4.7 KLD. Water will be taken from nearby village.

The details of mine capacity as per Approved Mining Plan are

Proved Mineable Reserve

6,94,023.07 tonne

Probable Mineable Reserve

3,56,092.02 tonne

Year-wise Production as per Approved Mining Plan Report for five years is as follows

1st Year

1,04,984.79 tonne

2nd Year

1,04,993.05 tonne

1,04,990.30 tonne

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4th Year 5th Year

1,04,951.73 tonne 1,04,989.47 tonne

The daily production as per Mine Plan is 350 tonne.

The indicated project cost is Rs 35.00 Lakh and a provision of Rs 5.50 Lakh has been indicated for Environment management and budget for CER is 1.00 Lakh.

DFO, Wildlife Hazaribagh vide letter no. 1657, dated 16.08.19 certified that the Udhwa Lake Bird Sanctuary is 35615 m from project site and not within 10 km from National Park, Bio-Diversity & Sanctuary and proposed project is not situated in any ESZ.

DFO, Sahibgani Division vide memo no. 887, dated 14.05.18 certified that the distance of nearest forest is 255 m from proposed project site.

The CO, Mandro vide memo no. 628, dated 09.07.19 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S Khatiyan & Register II.

DMO, Sahibganj vide memo no. 1871, dated 28.09.18 certified that no other lease is exists within 500 m radius from proposed project site.

The project is mentioned in District Survey Report (DSR) of Sahebgani District.

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 Damin Bhitha Stone Deposit of Sri Pradeep Kr. Keshari, Vill.: Damin Bhitha, Taluka: Mirzachowki, Dist.: Sahibganj (2.792 Ha) be recommended for consideration of SEIAA for grant of EC. The various conditions for grant of EC is enclosed as Annexure - III.

Kulbhanga Stone Deposit of M/s Maa Kamakhya Enterprises, Vill. : Kulbhanga, Taluka : xii. Jirwabari (O.P), Dist. : Sahibganj (2.83 Ha).

(Proposal No.: SIA/JH/MIN/40690/2019)

This is a Stone Mining Project with an area of 2.83 Ha [Plot No.- 5 (P), 6, 10]. The latitude and longitude of the project site is 25° 12' 45.59" N to 25° 12' 52.0" N and 87° 34' 48.95" E to 87° 34' 57.60" E. The nearest railway station is Karamtola at a distance of 5 km and the nearest highway NH-88 is 4. km and nearest airport is Malda at a distance of 59 km. Total water requirement is 5.7 KLD. Water will be taken from private tanker..

The details of mine capacity as per Approved Mining Plan are

Proved Mineable Reserve

5,48,245 tonne

Probable Mineable Reserve

4,12,123.21 tonne

Year-wise Production as per Approved Mining Plan Report for five years is as follows

1st Year

95,849.21 tonne

2nd Year

3rd Year

95,996.87 tonne

95,750.03 tonne

4th Year

95,874.00 tonne

5th Year

95,984.20 tonne

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The daily production as per Mine Plan is 320 tonne.

The indicated project cost is Rs 30.00 Lakh and a provision of Rs 4.00 Lakh has been indicated for Environment management and budget for CER is 1.00 Lakh.

DFO, Wildlife Hazaribagh vide letter no. 1659, dated 16.08.19 certified that the Udhwa Lake Bird Sanctuary is 31455 m from project site and not within 10 km from National Park, Bio-Diversity & Sanctuary and proposed project is not situated in any ESZ.

DFO, Sahibganj Division vide memo no. 1612, dated 25.08.18 certified that the distance of nearest forest is 255 m from proposed project site.

The CO, Mandro vide memo no. 626, dated 09.07.19 has mentioned the plot no. of the project is not recorded as "Jangle Jhari" in R.S Khatiyan & Register II.

DMO, Sahibganj vide memo no. 1870, dated 28.09.18 certified that no other lease is exists within 500 m radius from proposed project site.

The project is mentioned in District Survey Report (DSR) of Sahebgani District.

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 Kulbhanga Stone Deposit of M/s Maa Kamakhya Enterprises, Vill.: Kulbhanga, Taluka: Jirwabari (O.P), Dist.: Sahibganj (2.83 Ha) be recommended for consideration of SEIAA for grant of EC. The various conditions for grant of EC is enclosed as Annexure - III.

The meeting concluded with thanks to all present.

(Dr. B.K. Tewary)

Member

(Dr. R.N. Sing

Member

Member

(M.S. Bhagwat)

Member

(Om Prakash)

Member Secretary

Member

(Dr. V.P. Sinha) 0< 2019

Member

Member

U.P. Singh)

(K.P. Bhawsinka) 6.8

Chairman

PART A - GENERAL CONDITIONS

I. Pre-Construction Phase

- i. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel (kerosene/gas) for cooking, safe drinking water, medical health care, etc. The housing may be in the form of temporary structures to be removed after completion of the project.
- ii. 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.
- iii. Adequate safety measures shall be adopted for the construction workers.
- iv. 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.
- v. Fencing of the project boundary before start of construction activities.
- vi. Use of energy efficient construction materials shall be ensured to achieve the desired thermal comfort.
- vii. Use of fly ash based bricks/blocks/tiles/products shall be explored to the maximum extent possible.
- viii. Lay out of proposed buildings and roads within premises etc. shall be made in such a way that it shall cause minimum disturbance to existing flora and fauna. Appropriate green belt shall developed to compensate the habitat loss of tree cutting (if any) from competent authority as per prevailing Act/Rules. The exotic species existing within the existing premises, if any, shall be protected. The greening programme shall include plantation of both exotic and indigenous species.
- ix. Dedicated pedestrian paths shall be provided along the proposed Buildings. Appropriate access shall be provided for physically challenged people in the Pedestrian Paths.
- x. The design of service roads and the entry and exit from the buildings shall conform to the norms & standards prescribed by the State Public Works Department.
- xi. The road system shall have the road cross sections for general traffic, exclusive ways for public mass transport (bus) system, pedestrian paths and ways, utility corridors and green strip.
- xii. Topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site. Balance top soil should be disposed at in planned manner for use elsewhere adequate erosion and sediment control measures to be adopted before ensuing construction activities.
- xiii. Prior permission should be obtained from the competent authority for demolition of the existing structure, if any. Waste recycling plans including top soil should be developed

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prior to beginning of demolition and construction activity. The plans should identify wastes to be generated and designate handling, recycling and disposal method to be followed.

- xiv. Disposal of muck including excavated material during construction phase should not create any adverse effects in the neighbourhood and the same shall be disposed of taking the necessary precautions for general safety and health aspects.
- xv. The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which should in the vernacular language, informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Environment Impact Assessment Authority, Jharkhand and the same matter also be sent to Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry at Ranchi.
- xvi. Risk assessment study along with Disaster Management Plan (DMP) shall be prepared. The mitigative measures for disaster prevention and control shall be prepared and get approval from competent authority. All other statutory clearances/licenses/permissions from concerned State Governments Departments, Boards and Corporations shall be obtained for directions issued by Central Government/State Government, Central Pollution Control Board/Jharkhand State Pollution Control Board.
- xvii. Baseline Environmental Condition of Project area i.e. Monitoring of AAQ as per NAAQS 2009, Monitoring of Ambient Noise Level & Analysis of Ground Water Samples should be conducted and report should be submitted to State Environment Impact Assessment Authority (SEIAA), Jharkhand and Jharkhand State Pollution Control Board (JSPCB), Ranchi prior to start of construction activities.

II. Construction Phase

- i. It shall be ensured that the construction debris is properly stored on the site prior to disposal. Such requirements shall be made part of the contractor agreement.
- ii. All the top soil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site. Proper erosion control and sediment control measures shall be adopted.
- iii. Earth material generated from excavation shall be reused to the maximum possible extent as filling material during site development. The construction debris and surplus excavated material shall be disposed off by mechanical transport through the Saraikela Municipal Corporation.
- iv. Disposal of muck, including excavated material during construction phase, shall not create any adverse effects on the neighbouring communities and shall be disposed off taking the necessary precautions for general safety and health aspects.
- v. Low Sulphur diesel generator sets should be used during construction phase. Diesel generator sets during construction phase shall have acoustic enclosures and shall conform to Environment (Protection) Rules, 1986 prescribed for noise emission standards.

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- vi. 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.
- vii. Ambient noise levels shall confirm to the standards prescribed by MoEF & CC, Govt. of India.
- viii. The protective equipment such as nose mask, earplugs etc. shall be provided to construction personnel exposed to high noise levels.
- ix. Construction spoils, including bituminous material and other hazardous materials including oil from construction equipment must not be allowed to contaminate soil/ground water. The dumpsites for such material must be secured so that they shall not leach into the ground water.
- Proper and prior planning, sequencing and scheduling of all major construction х. activities shall be done. Construction material shall be stored in covered sheds. Truck carrying soil, sand and other construction materials shall be duly covered to prevent spilling and dust emission. Adequate dust suppression measures shall be undertaken to control fugitive dust emission. Regular water sprinkling for dust suppression shall be ensured.
- хi. Use of Ready-Mix concrete is recommended for the project.
- xii. Accumulation/stagnation of water shall be avoided ensuring vector control.
- Regular supervision of the above and other measures shall be in place all through the xiii. construction phase so as to avoid disturbance to the surroundings.
- xiv. Water during construction phase should be preferred from Municipal supply.
- All directions of the Airport Authority, Director of Explosives and Fire Department etc. XV. shall be complied.
- xvi. Unskilled construction labourers shall be recruited from the local areas.
- xvii. Provisions shall be made for the integration of solar water heating system.
- Provision of vermin-composting for the biodegradable solid wastes generated from the xviii. proposed extension buildings as well as the large amount of biomass that shall be available from the tree plantation shall be made.
- Monitoring of ground water table and quality once in three months shall be carried out. X1X Construction of tube wells, bore wells shall be strictly regulated.
- Permeable (porous) paving in the parking areas, and walkways should be used to XX. control surface runoff by allowing storm water to infiltrate the soil and return to ground water.
- xxi. All intersections shall be designed and developed as roundabouts.

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xxii. All utility lines (electricity, telephone, cable, water supply, sewage, drainage, etc. shall be laid below ground level. Ducts shall be provided along and across the roads to lay the utility lines. Major trunk (water/sewerage) lines are to be laid along the utility corridor.

The road drainage shall be designed to enable quick runoff of surface water and prevent le Alt water logging -BUT

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- xxiv. 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.
- xxv. Rest room facilities shall be provided for service population.
- xxvi. Monitoring of AAQ as per NAAQS 2009, Monitoring of Ambient Noise Level & Analysis of Ground Water Samples, should be conducted and report should be submitted on monthly basis to SEIAA, Jharkhand & Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi.

Water Body Conservation:-

- i. 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.
- ii. Improvement or rehabilitation of existing nallas (if any) shall be carried out without disturbing the ecological habitat.

III. Post Construction/Operation Phase

- i. The environmental safeguards and mitigation measures contained in the application shall be implemented in letter and spirit.
- ii. All the conditions, liabilities and legal provisions contained in the Environmental Clearance shall be equally applicable to the successor management of the project in the event of the project proponent transferring the ownership, maintenance of management of the project to any other entity. Ground water shall not be abstracted without prior permission from the competent authority.
- iii. The storm water management plan shall be implemented in such a manner that the storm water is discharged though an existing dedicated Storm Water Outfall only.
- iv. The height of the stack of the DG sets should be as per norms of Central Pollution Control Board (C.P.C.B.), New Delhi.
- v. Medical (First-Aid) facility must be provided for visitors & employees. Para-medical staff should be attached as Medical facility provider.
- vi. Plantation along the side of the buildings & roads and in the open spaces shall be developed to act as sinks of air pollutants. The plantation of trees shall be completed in the construction stage. The plantations shall consist of mixture of available indigenous, fast growing and sturdy species of trees, shrubs and herbs. Preferential plantation of flowering trees with less timber and fruits value shall be carried out.
- vii. Two chambered container or two separate containers (one for recyclable wastes and other for all organic and compostable wastes) shall be placed at appropriate distance on the roadsides and inside the building. Covered dustbins/garbage collector in convenient places to collect the Municipal solid wastes shall be provided.
- viii. Proper composting / vermi-composting of municipal solid wastes shall be carried out.

 All municipal solid wastes shall be segregated, collected, transported, treated and

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- disposed as per provisions of the Municipal Solid Wastes (Management and Handling) Rules, 2000 (As amended).
- ix. The use of hand gloves, shoes and safety dress for all waste collectors and sorters shall be enforced.

IV. Entire Life of the Project

- i. The project proponent should implement Environmental Monitoring Programme as per details submitted in EMP.
- ii. No expansion/modification activity should be carried out obtaining prior Environmental Clearance as per EIA Notification 2006.
- iii. Monitoring of AAQ as per NAAQS 2009, Monitoring of Ambient Noise Level & Analysis of Ground Water Samples, Monitoring of Stock Emissions & Testing of emission from DG sets should be conducted and report should be submitted on monthly basis to SEIAA, Jharkhand & JSPCB, Ranchi.

PART B- SPECIFIC CONDITIONS

I. <u>Pre-Construction Phase</u>

- Project Proponent should obtain prior consent to establish (NOC) under Section 25 & 26 of the Water (Prevention & Control of Pollution) Act' 1974 and under Section 21 of the Air (Prevention & Control of Pollution) Act' 1981 from State Pollution Control Board before start of construction activities.
- ii. It was also advised that CSR activity of the Project Proponent should be measurable and quantifiable, and it should be visible even after the completion of the project. The Project Proponent was also directed to deposit 10% of the CSR cost (2.5% of the total project cost). The security deposit is imposed to ensure the proper performance/implementation of the committed CSR activities.
- iii. Project Proponent should obtain prior permission for ground water withdrawal from CCWA/CGWB if applicable.
- iv. 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.
- v. Use of energy efficient construction materials to achieve the desired thermal comfort shall be incorporated. The desired level of roof assembling "U" factor and insulation "R" value must be achieved. Roof assembling "U" factor for the top roof shall not exceed 0.4 watt/sq.m./degree centigrade with appropriate modifications of specifications and building technologies. The provisions of National Building Code 2005 shall be strictly followed.
- vi. Street/Corridor lighting shall be energy efficient. The High Pressure Sodium Vapour (HPSV) Lamps & Compact Fluorescent Lamps (CFL) along Building premises shall be provided. High intensity, high mast lights to be installed at few strategic points.

 Solar energy may be used for outdoor lighting.

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- vii. Reduction of hard paving-onsite (Open area surrounding all buildings) and/or provision of shades on hard paved surfaces to minimize heat island effect and imperviousness of the site should be undertaken.
- viii. All proposed air/conditioned buildings should follow the norms proposed in the ECBC regulations framed by the Bureau of Energy Efficiency.
- ix. Monitoring of AAQ as per NAAQs 2009, Monitoring of Ambient Noise Level & Analysis of Ground Water Samples, Monitoring of Stack Emissions from DG sets should be conducted, and reports should be submitted on monthly basis to State Pollution Control Board (SPCB).
- x. Project proponent shall install Wind Augmentation and Air Purifying Unit (4 Units at one location in Ranchi) on Pilot basis to deal with particulate matter pollution.

II. Construction Phase

- i. All the conditions laid down in NOC issued by SPCB should be strictly complied with during entire construction cycle of the Project.
- ii. The water treatment plant shall be provided for treatment of water. The treatment shall include screening, sedimentation, filtration and disinfections. Appropriate arrangement shall be made for treatment and reuse of backwash water of filtration plant.
- iii. Project proponent shall provide adequate measuring arrangement at the inlet point of water uptake and at the discharge point for the measurement of water utilized in different categories and monitoring daily water consumption.
- iv. Regular water sprinkling shall be done all around the site to minimize fugitive dust emission during construction activities.
- v. Rain water harvesting structures should be provided as per submitted Plan.

III. Post Construction / Operation Phase

- i. Project Proponent should obtain prior consent to operate under Air Act, 1981 & Water Act, 1974 from State Pollution Control Board before commissioning of the project.
- ii. Water saving practices such as usage of water saving devices/fixtures, low flushing systems, sensor based fixtures, auto control walls, pressure reducing devices etc. should be adopted.
- iii. Water budget should be adopted as per the plan submitted in the supplementary Form I A & EMP.
- iv. All the generated domestic effluent should be sent to ETP/STP for treatment & further recycling & reuse.
- v. Treated water recovered from STP would be used for flushing the toilets, gardening purpose, make up water in air conditioning systems, etc. As proposed, Fluidized Bed Reactor (FBR) type sewage treatment plant should be installed. The Sewage Treatment Plant shall be ensured before the completion of Building Complex.

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- vi. Rainwater from open spaces shall be collected and reused for landscaping and other purposes. Rooftop rainwater harvesting shall be adopted for the proposed Buildings. Every building of proposed extension project shall have rainwater-harvesting facilities. Before recharging the surface runoff, pre-treatment must be done to remove suspended matter and oil and grease.
- vii. Municipal solid wastes generated in the proposed extension buildings shall be managed and handled in accordance with the compliance criteria and procedure laid down in Schedule- II of the Municipal Wastes (Management and handling) Rules, 2000 (As amended).
- viii. The standard for composting & treated leachates as mentioned in Schedule-IV of the Municipal Wastes (Management and handling) Rules, 2000 (As amended) shall be followed.
- ix. All hazardous wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Hazardous Wastes (Management and Handling) Rules, 1989 (As amended).
- x. Recycling of all recyclable wastes such as newspaper, aluminium cans, glass bottles, iron scrap and plastics etc. shall be encouraged through private participation. Project proponent shall take appropriate action to ensure minimum utilization of plastic carry bags and plastic small containers etc. within the proposed buildings shall be ensured.
- xi. Project proponent shall operate and maintain the sewage collection/conveyance system, sewage pumping system and sewage treatment system regularly to ensure the treated water quality within the standards prescribed by Ministry of Environment and Forests, Government of India.
- xii. Properly treated and disinfected (Ultra Violet Treatment) sewage shall be utilized in flushing the toilets, gardening purpose, make up water in air conditioning systems etc.
- xiii. Non-mixing of faecal matter with the municipal solid wastes shall be strictly ensured.
- xiv. Non-mixing of sewage/sludge with rainwater shall be strictly ensured.
- xv. Noise barriers shall be provided at appropriate locations so as to ensure that the noise levels do not exceed the prescribed standards. D.G. sets shall be provided with necessary acoustic enclosures as per Central Pollution Control Board norms.
- xvi. Back up supply shall be based on natural Gas/cleaner fuel subject to their availability.
- xvii. The project proponent shall resort to solar energy at least for street lighting and water heating for Proposed Building Complex, gardens/park areas.
- xviii. During maintenance, energy efficient electric light fittings & lamps- low power ballasts, low consumption high power luminaries, lux level limiters & timers for street lighting shall be provided.
- xix. A report on the energy conservation measures confirming to energy conservation norms finalized by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, "R" and "U" factors etc.
- Monitoring of AAQ as per NAAQS 2009, Monitoring of Ambient Noise Level & Analysis of Ground Water Samples, Monitoring of Stack Emissions from DG sets & Testing of Untreated & treated effluent samples of STPs should be conducted and report should be submitted on monthly basis to SPCB.

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IV. Entire Life of the Project

- i. All the conditions laid down in NOC & consent to operate issued by SPCB should be strictly complied with during entire life cycle of the project.
- ii. Monitoring of Ambient Noise Level & Analysis of Ground Water Samples, Monitoring of Stack Emissions from DG Sets & Testing of Untreated & treated effluent samples of STPs should be conducted and reports should be submitted on monthly basis to SPCB.
- iii. The project authorities shall ensure that the treated effluent and stack emissions from the unit are within the norms stipulated under the EPC rules or SPCB whichever is more stringent. In case of process disturbances/failure of pollution control equipment adopted by the unit, the respective unit shall be shut down and shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- iv. The overall noise levels in and around the project area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules 1989 viz. 75 DBA (day time) and 70 DBA (night time).
- v. The project authorities shall provide requisite funds for both recurring and non-recurring expenditure to implement the conditions stipulated by SEIAA, Jharkhand with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.
- vi. Plantation along the side of the buildings & roads and in the open spaces shall be developed to act as sinks of air pollutants. The plantation of trees shall be completed in the construction stage. The plantations shall consist of mixture of available indigenous, fast growing and sturdy species of trees, shrubs. 15% of the total plot area shall be used for plantations.
- vii. Whenever developer will hand over building to the society, the developer must mention in the agreement or sale deed that 15% green belt area of total plot area should mentioned & Environmental Conditions given by SEIAA, Jharkhand has to be complied.
- viii. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, ZilaParishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.
- ix. The funds earmarked for the environmental protection measures shall not be diverted for other purposes.
- x. In case of any changes in the scope of the project, the project shall require a fresh appraisal by the SEAC/SEIAA.
- xi. The SEAC/SEIAA, Jharkhand will have the right to amend the above conditions and add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the



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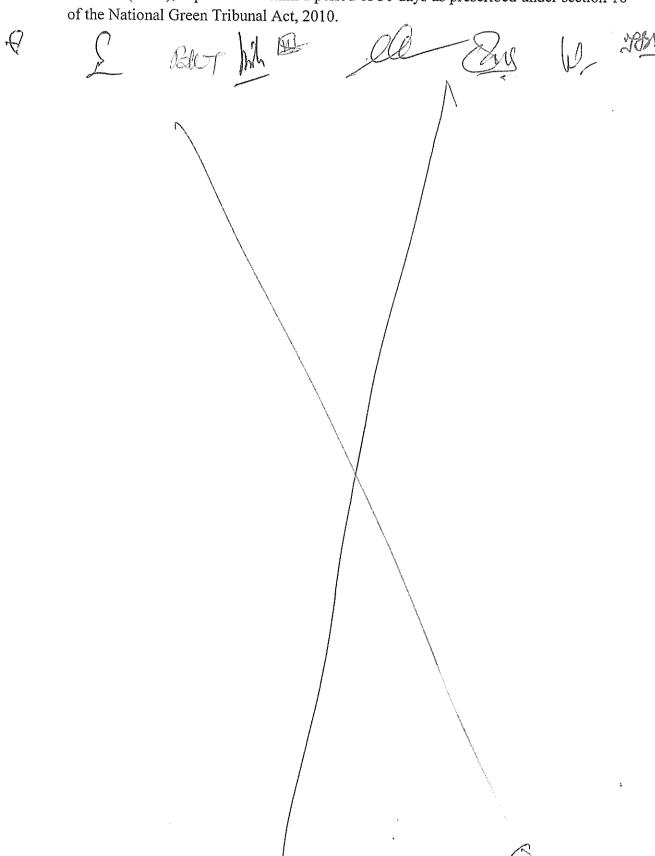
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Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.

xii. 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.

xiii. Any appeal against this Environmental Clearance shall lie with the National Green Tribunal (NGT), if preferred within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.



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

A. Standard Terms of Reference

1. Executive Summary

2. Introduction

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

3. Project Description

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

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- vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- viii. Landuse break-up of total land of the project site (identified and acquired), government/private agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
- ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
- x. Geological features and Geo-hydrological status of the study area shall be included.
- xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
- xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xiii. R&R details in respect of land in line with state Government policy

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

- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
- ii. Landuse map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (in case of projects involving forest land more than 40 ha)
- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

6. Environmental Status

- i. Determination of atmospheric inversion level at the project site and site-specific micrometeorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with min., max., average and 98% values

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- for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
 - ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
 - x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule- I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
 - xi. Socio-economic status of the study area.

7. Impact and Environment Management Plan

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling in case of discharge in water body
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor- cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control.
- vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.

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- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8. Occupational health

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

9. Corporate Environment Policy

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

11. Enterprise Social Commitment (ESC)

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

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

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

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

C. ADDITIONALTOR FOR INTEGRATED STEEL PLANT

- 1. Respirable Suspended particulate matter (RSPM) present in the ambient air must be analyzed for source analysis natural dust/RSPM generated from plant operations (trace elements). The RSPM shall also be analyzed for presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction, where applicable. Chemical characterization of RSPM and incorporating of RSPM data.
- 2. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
- 3. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
- 4. Plan for slag utilization
- 5. Plan for utilization of energy in off gases (coke oven, blast furnace)

D. Other

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- 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. 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.

3. The prescribed TORs would be valid for a period of three years for submission of the EIA / EMP reports, as per the O.M. No. J-11015/109/2013-IA.II(M), dated 12.01.2017.

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A. Specific Conditions

- 1. The environmental clearance is subject to period of lease of the mine by the Department of Mines, Government of Jharkhand to PP and all other Statutory Conditions as imposed by various agencies / District Authorities are complied with.
- 2. No mining shall be undertaken in the forest area without obtaining requisite prior forestry clearance.
- 3. Environmental clearance is subject to final order of the Hon'ble Supreme Court of India / National Green Tribunal / MOEF Guidelines applicable to Minor Minerals.
- 4. Environmental clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the competent authority, as may be applicable to this project (in case any endangered fauna occurs / is found in the Project area). No damage is to be done to the fauna in general and endangered species in particular, if found in ML area (as mentioned in various schedules). In such case they should be given protection, capture alive with the help of the subject expert and transfer them or handing over them to the concerned authorities. Conservation Plan, if applicable has to be adhered to.
- 5. The mining operations shall be restricted to ground above water table and it should not intersect the groundwater table. In case of working below the ground water table, prior approval of the Ground Water Directorate, Government of Jharkhand / Central Ground Water Board shall be obtained. Benches height and slope shall be maintained as per approved Mining Plan. The Mining Plan has to be got approved by concerned authorities as per IBM or equivalent agencies. Safety measures shall be adopted in line with DGMS Guidelines.
- 6. PP shall maintain minimum distance from Reserved / Protected Forests as stipulated in applicable guidelines.
- 7. The project proponent shall ensure that no natural watercourse and / or water resources shall be obstructed / diverted due to any mining operations. Adequate measures shall be taken for conservation and protection of the first order and the second order streams, if any emanating / passing through the mine lease area during the course of mining operation.
- 8. The top soil, if any shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used by spreading on the land reclamation and plantation.
- 9. There shall be no external dump(s). Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Jharkhand State Pollution Control Board, Ranchi and its nearest Regional Office on six monthly basis.
- 10. Catch drains and siltation ponds of approved size to contain silt & water and its location shall be constructed around the mine working, sub-grade and mineral dump(s) to prevent run off of water and flow of sediments directly into the nearby agricultural fields, and other water bodies. The water so collected should be utilized for watering the haul roads, green belt development etc. A periodical report shall be sent. The drains shall be regularly desilted particularly after the monsoon and maintained properly.
- 11. Dimension of the retaining wall at the toe of the OB benches within the mine to check runoff and siltation shall be based on the rain fall data.

12. Greenbelt of approved width shall be developed all along the length of mine lease area and haul roads. The Project proponent shall do adequate no at least 50 bamboo gabion plantation

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- each year and maintain it for the life of the mine along the transport road and vacant space, preferably along the periphery of mining lease. Fast growing and local species will be planted.
- 13. Effective safeguard measures such as regular water sprinkling shall be carried out in the identified critical areas prone to air pollution and having high levels of particulate matter such as loading and unloading point and transfer points. Extensive water sprinkling as per approved plan shall be carried out on haul roads which should be made pucca as per approved specification of Govt. of Jharkhand with suitable water drainage arrangements. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
- 14. The project proponent shall implement approved conservation measures to augment ground water resources in the area in consultation with the Ground Water Directorate, Government of Jharkhand / Central Ground Water Board.
- 15. The project proponent shall if required, obtain necessary prior permission/NOC from the competent authorities for drawl of requisite quantity of water required from the source for the project.
- 16. Suitable rainwater harvesting measures shall be planned and implemented in consultation with the Ground Water Directorate, Government of Jharkhand / Central Ground Water Board.
- 17. Vehicular emissions shall be kept under control by regular repairing of transport road and regular air quality monitoring. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded. No transportation of stone / sand outside the mine lease area shall be carried out after the sunset.
- 18. No blasting shall be carried out after sunset. Blasting operation shall be carried out only during daytime. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.
- 19. Drilling shall either be operated with the dust extractors or equipped with water injection system.
- 20. Effective safeguard measures shall be taken to control fugitive emissions so as to ensure that RPM (PM10 and PM 2.5) levels are within prescribed limits.
- 21. Pre-placement medical examination and periodical medical examination of the workers engaged in the project conducted by a Registered Medical Officer shall be carried out and records maintained.
- 22. The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna.
- 23. Provision shall be made for the housing of construction labour at a suitable place away from the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets / septic tanks, safe drinking water, medical health care, etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- 24. Proper Safety measures as per statutory requirement shall be implemented around the mined out Pit prior to closure of site.
- 25. A final mine closure Plan along with corpus fund duly approved by Competent Authority shall be submitted to the Jharkhand State Pollution Control Board, Ranchi and to concerned DMO in advance of final mine closure for approval.

- 26. The project proponent shall obtain Consent to establish and Consent to Operate from the Jharkhand State Pollution Control Board, Ranchi and effectively implement all the conditions stipulated therein.
- 27. The Project Proponent shall submit six monthly report on the expenditure incurred on environmental management plan submitted by them.
- 28. Since blasting and mining on Hillock / Rock out crop may also be carried out, suitable scheme for access / ramp to the highest elevation with gradient shall be submitted for approval from competent authorities.
- 29. Approved devices for dust suppression shall be installed.

B. General conditions

- 1. No change in mining technology and scope of working should be made without prior approval of the Statutory authorities / Department of Mines, Government of Jharkhand / Jharkhand State Pollution Control Board, Ranchi during the EC period.
- 2. No change in the calendar plan including excavation, quantum of mineral and waste should be made.
- 3. The Project proponent shall make all internal roads pucca as per approved specification of Govt. of Jharkhand and shall maintain a good housekeeping by regular cleaning and wetting of the haul roads and the premises.
- 4. The Project proponent shall maintain register for production and dispatch and submit return to the Board.
- 5. The Project proponent shall not cut trees / carry out tree felling in leased out area without the permission of competent authority.
- Measures should be taken for control of noise levels below prescribed norms in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.
- 7. Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards Oil and grease trap should be installed before discharge of workshop effluents.
- 8. Personnel working in dusty areas should be provided with protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed. Detailed report shall be sent to Pollution Control Board periodically.
- 9. Dispensary facilities for First Aid shall be provided at site.
- 10. A separate environmental management / monitoring cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- 11. The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Jharkhand State Pollution Control Board, Ranchi. PP shall carry out CSR activities as per Government Guidelines (%of Profit / turnover) or at least Rs 1 per ton whichever is higher.
- 12. The Jharkhand State Pollution Control Board, Ranchi directly or through its Regional Office, shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) by furnishing the requisite data / information monitoring reports.

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- 13. The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the SEIAA / JSPCB and to its concerned Regional Office.
- 14. The proponent shall upload the status of compliance of the environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to Jharkhand State Pollution Control Board and its concerned Regional Office The criteria pollutant levels namely; SPM,RSPM,SO₂,NO_x (ambient levels) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the project shall be monitored and displayed at a convenient location near the main gate of the company in the company in the public domain.
- 15. A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZilaParisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the project proponent.
- 16. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the Jharkhand State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986,as amended subsequently shall also be put on the website of the company along the status of compliance of EC conditions and shall also to the concerned Regional Office of JSPCB by e-mail.
- 17. All statutory clearances shall be obtained before start of mining operations.

C. Other points

- 1. 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.
- 2. The Environmental Clearance accorded will be valid for the period of lease of the mine, till the PP does not increase production rate and alter lease area during the validity of Environmental Clearance.
- 3. 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.
- 4. The above stipulations would be enforced among others under 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 made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court of Jharkhand and any other Court of Law relating to the subject matter.

5. 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:

A. Specific Conditions:

- 1. The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the SEAC and finalized by the regulatory authority.
- 2. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the SEAC and approval of the regulatory authority.
- 3. Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment.
- 4. Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
- 5. The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter in the EIA report by the accredited consultants.
- 6. Funds allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/ 2017-IA.III dated May, 2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report.

B. Standard conditions:

- 1. 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.
- 2. A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- 3. 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.
- 4. 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).
- 5. 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.
- 6. 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.

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- 7. 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.
- 8. 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.
- 9. 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.
- 10. 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.
- 11. 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.
- 12.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.
- 13. 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.
- 14. 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.
- 15. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- 16. 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.
- 17. 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

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- 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.
- 18. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- 19. 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.
- 20. 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).
- 21.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.
- 22. 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.
- 23. 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

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- 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.
- 24. 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.
- 25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- 26. 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.
- 27. 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.
- 28. 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.
- 29. 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.
- 30. 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.
- 31. 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.
- 32. Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.

33. Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.

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- 34. 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.
- 35. 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.
- 36. 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.
- 37. 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.
- 38. 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.
- 39. 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.
- 40. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 41. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- 42. A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- 43. 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.
- 44. 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.

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- g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF& CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF & CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
- i) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
- j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.
- 45. The prescribed TORs would be valid for a period of three years for submission of the EIA / EMP reports, as per the O.M. No. J-11015/109/2013-IA.II(M), dated 12.01.2017.

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